

**CITY OF DANA POINT
PLANNING COMMISSION
AGENDA REPORT**

DATE: JUNE 10, 2024

TO: DANA POINT PLANNING COMMISSION

FROM: COMMUNITY DEVELOPMENT DEPARTMENT
BRENDA WISNESKI, DIRECTOR
DANNY GIOMETTI, SENIOR PLANNER

SUBJECT: ANTENNA USE PERMIT AUP24-0001; COASTAL DEVELOPMENT PERMIT CDP24-0007 AND MINOR CONDITIONAL USE PERMIT CUP24-0002 (M) TO INSTALL PANEL AND MICROWAVE ANTENNAS HOUSED WITHIN TWO, INDIVIDUAL, FAUX MANSARD ROOFTOP ENCLOSURES, EACH PROJECTING A MAXIMUM OF 7'-3" ABOVE THE TOP OF THE EXISTING GABLE ROOFLINE

RECOMMENDATION: That the Planning Commission adopt the attached draft Resolution approving Antenna Use Permit (AUP24-0001); Coastal Development Permit (CDP24-0007) and Minor Conditional Use Permit (CUP24-0002(M)).

APPLICANT: Peter Blied/Plancom Inc. on behalf of Verizon Wireless

OWNER: Blue Lantern Property, LLC

REQUEST: Approval of entitlements to permit the installation of roof mounted panel and microwave antennas on an existing building

LOCATION: 34085 Pacific Coast Highway (APN: 672-231-07)

NOTICE: Notices of the Public Hearing were mailed to property owners within a 500-foot radius and occupants within a 100-foot radius on May 23, 2024, published within a newspaper of general circulation on May 24, 2024, and posted on May 23, 2024, at Dana Point City Hall, the Dana Point and Capistrano Beach Branch Post Offices. Notice was also provided pursuant to Section 9.26.010(f) of Dana Point Town Center Plan (DPTCP).

ENVIRONMENTAL: Pursuant to the California Environmental Quality Act (CEQA), the project is categorically exempt per Section 15301 of the CEQA Guidelines (Class 1 – Existing Facility) since the project consists of a minor alteration to an existing structure.

ISSUES:

1. Is the proposal consistent with the Dana Point General Plan, the Dana Point Town Center Plan (DPTCP) and the Dana Point Zoning Code?
2. Does the proposal satisfy all findings required pursuant to the DPZC for approval of an AUP, CDP and a CUP(M)?
3. Is the proposed project compatible with and an enhancement to the site and surrounding neighborhood?

BACKGROUND: This project was pulled from the May 13, 2024, Planning Commission meeting agenda and not discussed due to a revision in the scope of work. The project has been re-noticed for the subject Planning Commission hearing.

The subject site consists of two lots totaling 66,722 square feet and located at the northwest intersection of the street of the Blue Lantern and Pacific Coast Highway (PCH) within the City of Dana Point's Town Center. The site (referred to as Blue Lantern Plaza) is surrounded by a variety of restaurants and residential dwellings and a vacant lot and the Headlands Preserve to the north across the Street of the Green Lantern (Supporting Document 2 – Vicinity Map). The site is developed with an existing two-level, L-shaped multi-tenant commercial building, with a parking lot in the front and on the upper rear side. The building's exterior finishes include a combination of horizontal wood siding, adhered large format tile and stucco painted a three (3) tone color pallet. The building's mansard style roof line has built-up gable ends and a pitched parapet which screens the flat roof center where a variety of mechanical equipment is currently installed (Supporting Document 3 – Site Photos).

DISCUSSION: The subject application proposes the installation of multiple commercial wireless antennas and microwaves housed within two (2) separate, roof-mounted enclosures and accessory equipment located within an existing equipment room on the upper parking lot of the site. A total of 12 panel antennas, 6 radio units and one microwave antenna are proposed to be installed within two separate roof mounted enclosures. The roof mounted telecommunication facility is proposed to be located at both the north and southeastern ends of the building roof, screened behind the existing mansard style parapet walls, and housed within two fire-retardant panel (FRP) enclosures designed to match the wall and roof materials of the existing building (Supporting Document 4 – Materials). Both FRP antenna enclosures extend 7'-3" feet above the existing roofline. The height of the building with the enclosure meets the maximum height limit for structures within the City's Town Center which is 40-feet, measured from the mid-point grade elevation (structure low point) of 184.89-feet to the top of the enclosure at 224.89-feet. The roof mounted enclosure

on the northern end is proposed to be 33-feet in length by 14'-6" in width with the long side facing PCH. The roof mounted enclosure on the southern end is 14'-6" by 19-feet with the short side facing PCH. All additional equipment which serves the facility is proposed to be located within an existing storage room in the back, upper parking lot of the building. Additionally, both the lower and upper parking lots will maintain the same number of parking stalls, and DPZC required drive aisles and circulation will be maintained (Supporting Document 5 – Plans and Simulations).

During the preliminary and initial project review stages, the applicant evaluated multiple alternative sites, however the targeted "gap" area had limited options due to existing topography and residential development in the area. Furthermore, Staff strongly discouraged the installation of any freestanding mono pole wireless facility and encouraged collocation or building mounted, screened wireless antennas. After the applicant chose the subject location, staff reviewed multiple designs and worked through potential issues with the applicant. Staff concluded that given the non-distinct architecture, fire-resistance requirements and locational cell coverage constraints, the current proposal fulfills the stealth design criteria established in Section 9.07.020(5) of the DPZC (Supporting Document 6 – Site Search Exhaustion Study).

Antenna Use Permit AUP24-0001

Sections 9.07.020(2)(4)(J) and (K), of the City's Zoning Code require approval of a major antenna use permit for stealth and non-freestanding commercial wireless telecommunication antenna facilities setback 100 to 150 feet from residential districts, and setback 0 to 150 feet from the centerline of scenic highways, respectively. Although both roof mounted antenna facilities are located well over 150 from the centerline of PCH (which is defined as a scenic highway in the City's General Plan), the southern roof mounted enclosure is between 100 to 150 feet from the nearest residential property line and therefore necessitates approval for the subject major AUP. The proposed roof and wall mounted screens are architecturally compatible with the existing building and the proposed equipment will be located within an existing enclosure on site.

Pursuant to Section 9.07.020(b)(6) "Antenna Use Permit Findings" of the DPZC, the following are required findings for every Antenna Use Permit:

1. That the proposed antenna facility will not create any significant or meaningful blockage to public views; and,
2. That the proposed antenna facility will be an enhancement to the City due to its ability to provide additional communication capabilities; and,
3. That the proposed antenna facility will be aesthetically integrated into its surrounding environment; and,

4. That the proposed antenna facility will not interfere with the reception or transmission of other wireless telecommunication signals within the surrounding community; and,
5. That the proposed antenna facility will operate in compliance with all applicable Federal safety regulations for such facilities; and,
6. That the public need for the use of the antenna facility has been documented.

A Radio Frequency (RF) report has been submitted by the applicant verifying that the proposed facility will comply with Federal Communication Commission (FCC) standards for public radio frequency exposure (Supporting Document 7 – RF Report). In addition, the submitted coverage maps verify that placement of the new antennas would not only provide an adequate replacement, but an improvement to Verizon's cellular service for both public and private users within DPTCP area (Supporting Document 8 – Coverage Maps). The recommended findings for approval of the AUP are outlined in draft Resolution No. 24-06-10-XX, attached to this report as Action Document 1.

Coastal Development Permit CDP24-0007

The proposed project is considered "coastal development," pursuant to the DPZC definition in Section 9.75.040 of the DPZC, thereby necessitating the need for a CDP.

Section 9.69.070 of the DPZC identifies the following findings required to approve a Coastal Development Permit:

1. *Be in conformity with the certified Local Coastal Program as defined in Chapter 9.75 of this Zoning Code. (Coastal Act/30333, 30604(b); 14 CA Code of Regulations/13096).*
2. *If located between the nearest public roadway and the sea or shoreline of any body of water, be in conformity with the public access and public recreation policies of Chapter Three of the Coastal Act. (Coastal Act/30333, 30604(c); 14 CA Code of Regulations/13096).*
3. *Conform with Public Resources Code Section 21000 and following, and there are no feasible mitigation measures or feasible alternatives available which would substantially lessen any significant adverse impact that the activity may have on the environment. (Coastal Act/30333; 14 CA Code of Regulations/13096).*
4. *Be sited and designed to prevent adverse impacts to environmentally sensitive habitats and scenic resources located in adjacent parks and recreation areas, and will provide adequate buffer areas to protect such resources.*

5. *Minimize the alterations of natural landforms and not result in undue risks from geologic and erosional forces and/or flood and fire hazards.*
6. *Be visually compatible with the character of surrounding areas, and, where feasible, will restore and enhance visual quality in visually degraded areas.*
7. *Conform to the General Plan, Zoning Code, applicable Specific Plan, Local Coastal Program, or any other applicable adopted plans and programs.*

The recommended findings for approval of the CDP are outlined in draft Resolution No. 24-06-10-XX, attached to this report as Action Document 1.

Conditional Use Permit CUP24-0002(M)

Pursuant to the DPTCP, "Commercial Antennas" are subject to review and approval of a CUP. The subject application proposes the installation of new antennas atop an existing building located in the Town Center.

Pursuant to Section 9.65.060(b) "Basis of Approval, Conditional Approval, or Denial of a Conditional Use Permit" of the DPZC, the Planning Commission shall make the following findings:

1. That the proposed conditional use is consistent with the General Plan;
2. That the nature, condition, and development of adjacent uses, buildings, and structures have been considered;
3. That the proposed conditional use will not adversely affect or be materially detrimental to the adjacent uses, buildings, or structures;
4. That the proposed site is adequate in size and shape to accommodate the yards, walls, fences, parking and loading facility, landscaping, and other land use development features prescribed in this Code and required by the Commission or Council in order to integrate the use with existing and planned uses in the vicinity.

The application proposes multiple antennas with ancillary equipment to be housed inside FRP screen structures which meet the maximum height limit for the DPTCP. There would be no impact on existing parking, surrounding uses or structures, or to the subject building. The recommended findings for approval of the CUP(M) are outlined in draft Resolution No. 24-06-10-XX, attached to this report as Action Document 1.

CORRESPONDENCE:

To date, no formal correspondence has been received.

CONCLUSION:

Based on the subject analysis, Staff has determined that the project is consistent with the policies and provisions of the City of Dana Point General Plan, the DPTCP and the DPZC and consequently, all applicable findings for approval can be made. Therefore, staff recommends approval of AUP24-0001; CDP24-0007; CUP24-0002, subject to the conditions contained in the attached draft resolution.

ATTACHMENTS:

Action Documents

1. Draft Planning Commission Resolution No. 24-06-10-XX (Pending)

Supporting Documents

2. Vicinity Map
3. Site Photos
4. Materials
5. Plans and Simulations
6. Site Search Exhaustion Study
7. RF Emissions Compliance Report
8. Verizon Wireless Coverage Maps

ACTION DOCUMENT 1: Draft Planning Commission Resolution No. 24-06-10-XX
(Pending)

DRAFT

SUPPORTING DOCUMENT 2: Vicinity Map



Vicinity Map

34085 Pacific Coast Highway
AUP24-0001; CDP24-0007; CUP24-0002(M)
June 10, 2024



SUPPORTING DOCUMENT 3: Site Photos



SUPPORTING DOCUMENT 4: Materials

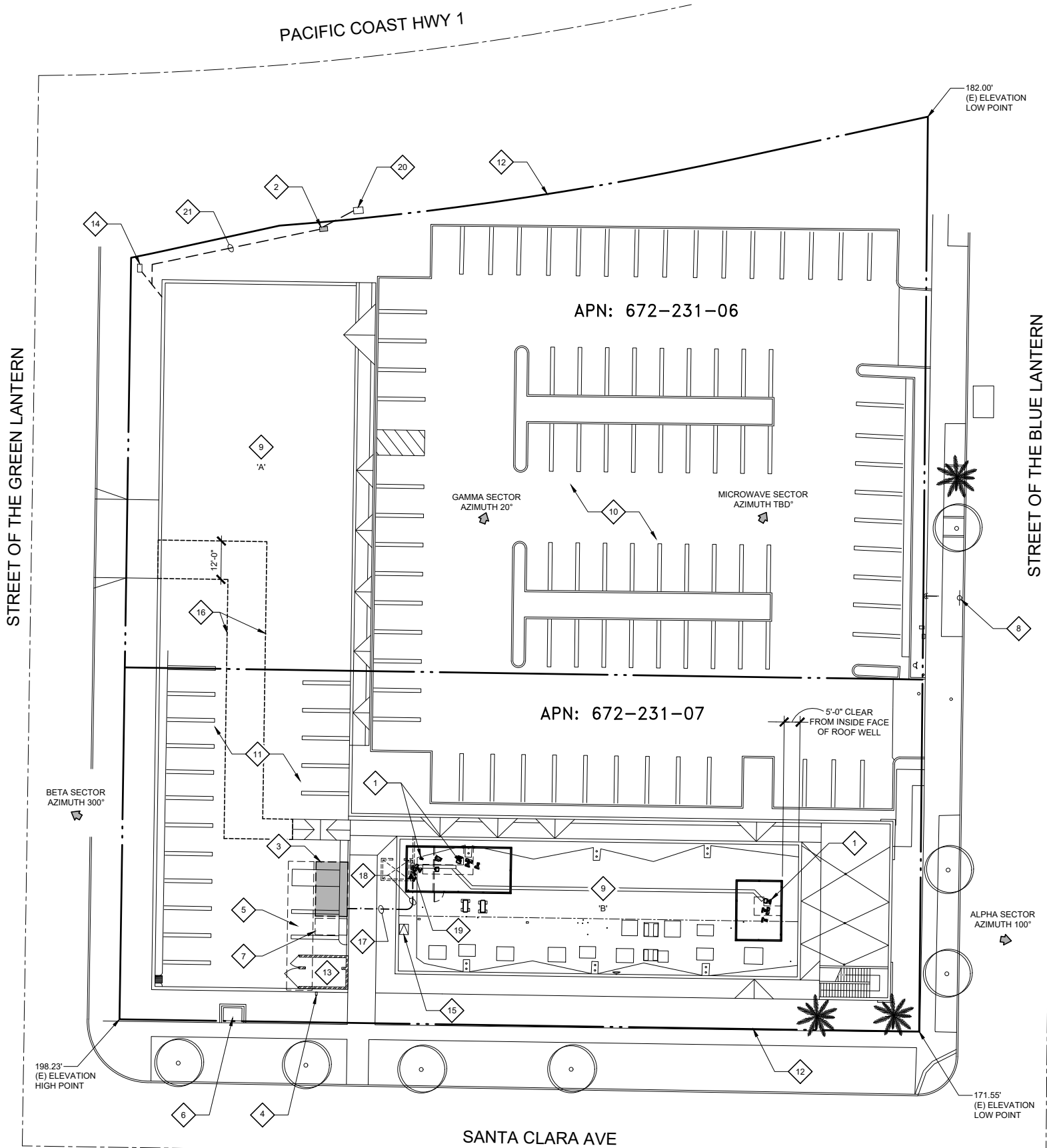


SUPPORTING DOCUMENT 5: Plans and Simulations

ATTACHMENT

DRAFT

T-1



SITE PLAN

SCALE: 1" = 20'-0"

0' 10' 20' 40'

KEYED NOTES:

- 1 (N) VERIZON PANEL & MICROWAVE ANTENNAS MOUNTED BEHIND A (N) FRP SCREENED ROOFTOP ENCLOSURE. SEE ROOF PLAN SHEET A-2.
- 2 17" x 30" VERIZON MMP HANDHOLE
- 3 (N) VERIZON EQUIPMENT INSIDE (E) STORAGE ROOM. SEE ENLARGED SITE & EQUIPMENT PLANS SHEET A-1.
- 4 (N) REVERSE SERVICE GENERATOR RECEPTACLE ADJACENT TO DOOR TO MAIN ELECTRICAL ROOM
- 5 (E) ELECTRICAL ROOM INBASEMENT. (N) POWER P.O.C. (OPTION #1) (E) SDG&E 120/208 VOLT, 3Ø, 4W, 2000A PULL SECTION IN
- 6 (E) SDG&E TRANSFORMER #D118879-794 ON AN (E) CONCRETE PAD. (N) POWER P.O.C. (OPTION #2)
- 7 (E) COX AND AT&T FIBER FTP IN MPOE OR UTILIZE (E) CONDUIT INTO MPOE IN (E) TELCO ROOM. (N) FIBER P.O.C. (OPTION #1)
- 8 (E) COX AND AT&T FIBER ON (E) POLE #P207331S. (N) FIBER P.O.C. (OPTION #2)
- 9 (E) BUILDING
- 10 (E) ASPHALT PARKING LOT
- 11 (E) CONCRETE PARKING DECK
- 12 PROPERTY LINE, TYPICAL
- 13 (E) CONCRETE BLOCK TRASH ENCLOSURE WITH CHAIN LINK GATES
- 14 (E) COX HANDHOLE FIBER TO MPOE (VERIFY)
- 15 (E) ROOF ACCESS HATCH
- 16 12'-0" WIDE VEHICLE ACCESS PATH FOR VERIZON OPERATIONS. NO ASSIGNED PARKING. ACCESS TO SITE IS VIA EXISTING PUBLIC STREETS, WALKWAYS & STAIRS.
- 17 APPROXIMATE CABLE ROUTE THROUGH SOFFIT OVER BREEZEWAY & BETWEEN BUILDINGS
- 18 APPROXIMATE CABLE ROUTE TO BETA & GAMMA SECTORS IN CEILING SPACE BETWEEN FIRST & SECOND FLOORS
- 19 VERTICAL CABLE ROUTE TO ROOF IN DEAD SPACE ADJACENT TO ELEVATOR
- 20 24" x 36" ONE FIBER HANDHOLE LOCATED IN SIDEWALK
- 21 (N) ONE-FIBER ROUTE TO WYE INTO (E) PATH TO MPOE

HEIGHT DETERMINATION

198.23' (HIGH) + 171.55' (LOW) = 369.78'
MID-POINT GRADE ELEVATION: 184.89'
TOP OF TALLEST SCREEN: 224.89'
HEIGHT OF STRUCTURE: = 40.00'

BOUNDARY NOTE:

THE PROJECT BOUNDARY SHOWN ON THIS DRAWING IS APPROXIMATE AND IS SHOWN FOR REFERENCE ONLY. A COMPLETE BOUNDARY SURVEY WAS NOT PERFORMED.

EASEMENTS:

EASEMENTS SHOWN REFLECT PRELIMINARY RECORDS RESEARCH OF RECORDED PARCEL MAPS & PRELIMINARY TITLE REPORT. EASEMENTS ARE SUBJECT TO REVIEW OF FINAL TITLE REPORT.

ISSUE STATUS

REV.	DATE	DESCRIPTION	BY
0	11/17/2021	90% ZD	RD
1	01/20/2023	DRM COMMENTS	JN
2	04/11/2023	DRM COMMENTS	RL
3	04/21/2023	100% ZD DRM REVS	RL
4	08/10/2023	HEIGHT DETERMINATION	RL
5	08/24/2023	COORDINATE W/ SURVEY	RL
6	12/22/2023	ROOFTOP REDESIGN	RL
7	04/18/2024	REVISED 90% ZD	RL
8	04/30/2024	REVISED ALPHA SECTOR	RL

PLANCON
TELECOMMUNICATIONS PROJECT MANAGEMENT

16776 BERNARDO CENTER DR,
UNIT 203
SAN DIEGO, CA 92128

PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS PROPRIETARY & CONFIDENTIAL TO VERIZON. ANY USE OR DISCLOSURE OTHER THAN AS IT RELATES TO VERIZON IS STRICTLY PROHIBITED.

verizon
15505 SAND CANYON AVENUE
BUILDING C
IRVINE, CA 92618

SELVA HILL

RELO

PROJECT I.D. 15949473
34085 COAST HWY
DANA POINT, CA 92629

SHEET TITLE:

SITE PLAN

A-0

ISSUE STATUS

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0	11/17/2021	90% ZD	RD
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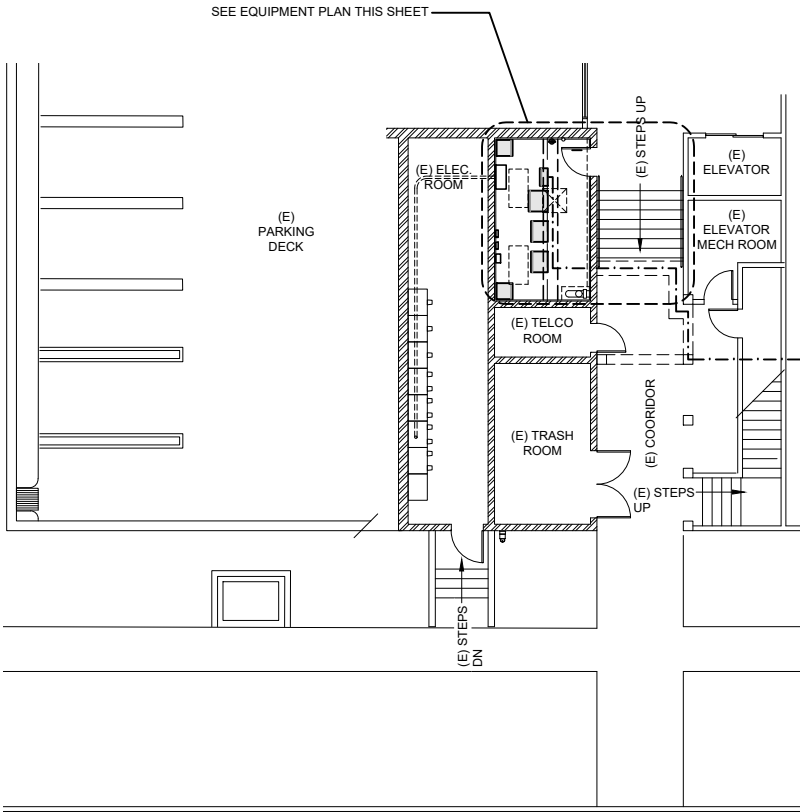
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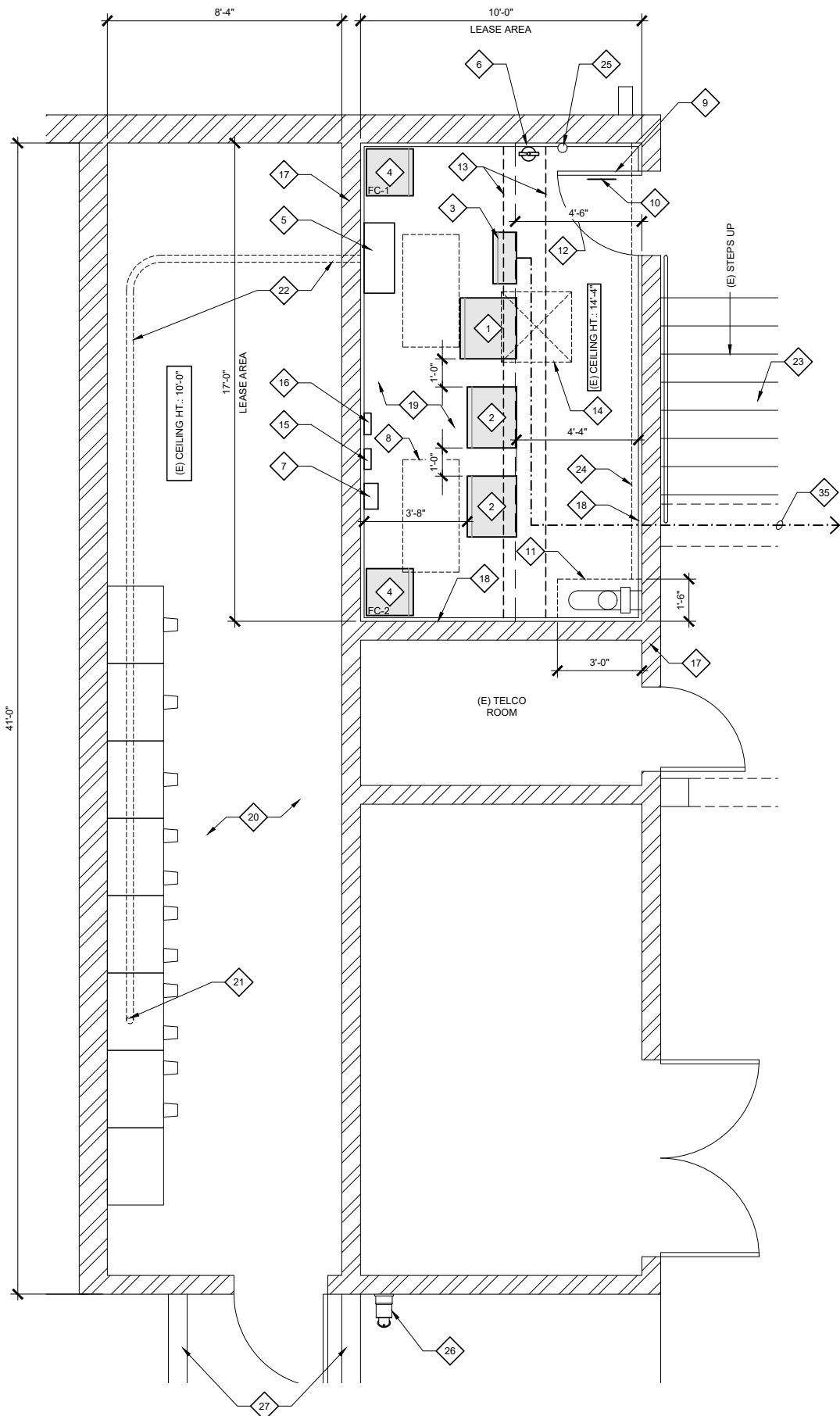
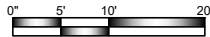
SHEET TITLE:
ENLARGED SITE &
EQUIPMENT PLANS

A-1



ENLARGED SITE PLAN

SCALE: 1" = 10'-0"

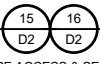


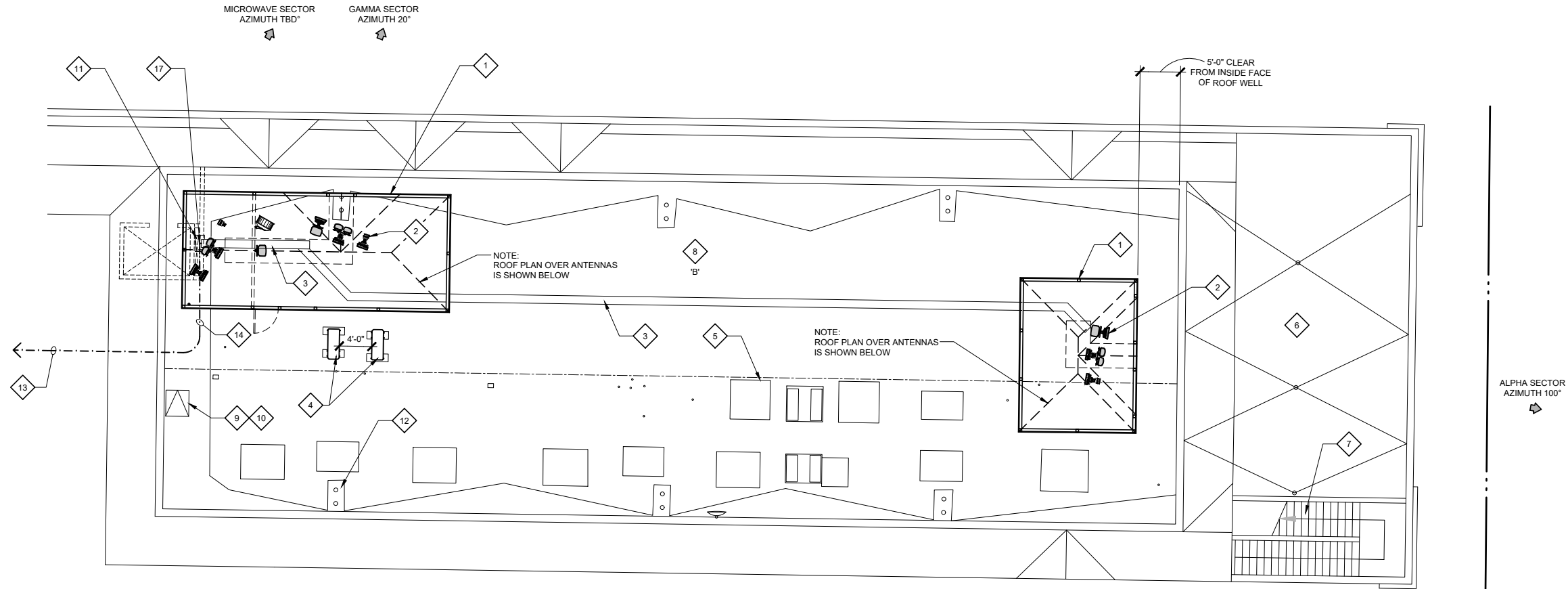
EQUIPMENT PLAN

SCALE: 3/8" = 1'-0"



KEYED NOTES:

- (N) VERIZON INTERIOR RADIO RACK.
26" WIDE x 24" DEEP x 84" HIGH (TYPICAL OF 1)
- (N) VERIZON INTERIOR BATTERY & POWER PLANT.
26" WIDE x 21" DEEP x 84" HIGH (TYPICAL OF 2)
- (N) VERIZON INTERIOR FIBER RACK.
22" WIDE x 10" DEEP x 78" HIGH (TYPICAL OF 2)
- (N) VERIZON FAN COIL UNITS (TYPICAL OF 2)
- (N) VERIZON INTEGRATED LOAD CENTER (ILC) MOUNTED TO WALL
- (N) CLASS "ABC" FIRE EXTINGUISHER MOUNTED TO WALL
- (N) BATTERY ACID NEUTRALIZATION KIT
- (N) FLOURESCENT LIGHT FIXTURE IN (N) T-BAR SUSPENDED CEILING
(SHOWN DASHED)(TYPICAL OF 2)
- (E) 1-HOUR RATED STEEL DOOR & FRAME TO REMAIN
- (N) VERIZON SIGNAGE. SEE DETAILS 
- CLEAR SPACE FOR (E) FIRE STAND PIPE ACCESS & SERVICE
- CLEARANCE TO (E) FIRE SPRINKLER MAIN LINE ABOVE (SHOWN DASHED)
- (N) OVERHEAD 18" CABLE LADDER @ +8'-0" (SHOWN DASHED)
- (N) CABLE HATCH ABOVE (SHOWN DASHED)
- (N) ENVIRONMENTAL CONTROL PANEL
- (N) LEAD/LAG CONTROL FOR AIR HANDLERS
- (E) CONCRETE BLOCK WALL
- (N) DRYWALL WALL FINISH OVER HAT CHANNEL (ALL WALLS)
- (N) T-BAR SUSPENDED CEILING AT +9'-0"
- (E) ELECTRICAL ROOM
- ELECTRICAL POINT OF CONNECTION AT (E) 120/208, 2000A. UTILIZE
(E) EMPTY METER SOCKET AT (E) ELECTRICAL SWITCHGEAR
- (N) OVERHEAD ELECTRICAL POWER CONDUIT FROM ILC THROUGH
WALL TO P.O.C. @ (E) SWITCHGEAR
- (E) EXTERIOR STAIRS
- (E) DRAIN LINE ON WALL @ +7'-0" (SHOWN DASHED)
- (E) VERTICAL ROOF DRAIN
- (N) REVERSE SERVICE GENERATOR RECEPTACLE
- (E) 2'-0" TALL SPLIT-FACE BLOCK RETAINING WALL

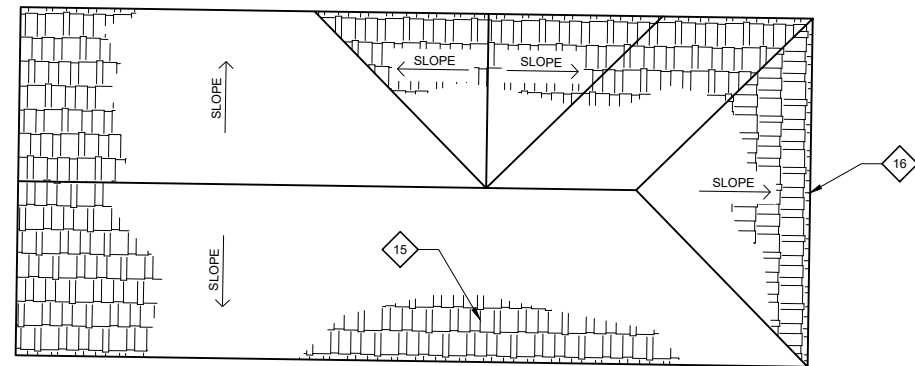


ROOF PLAN

SCALE: 1/8" = 1'-0"

0" 4' 8' 16'

N



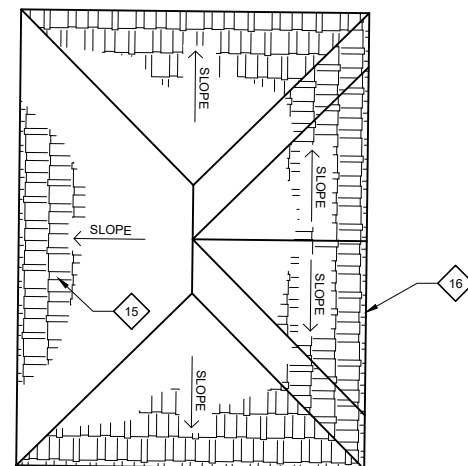
BETA & GAMMA SECTORS

ROOF PLAN (ABOVE ANTENNAS)

SCALE: 1/4" = 1'-0"

0" 2' 4' 8'

N



ALPHA SECTOR

KEYED NOTES:

- 1 (N) VERIZON FRP SCREENED ROOFTOP ENCLOSURE.
SEE ANTENNA PLANS SHEET A-3.
- 2 (N) VERIZON PANEL ANTENNAS MOUNTED BEHIND (N) FRP SCREEN.
SEE ANTENNA PLANS SHEET A-3.
- 3 (N) VERIZON CABLE TRAY
- 4 (N) A/C/ CONDENSER UNITS ON PVC SPEEPEERS LOCATED ON
ROOF (TYPICAL OF 2)
- 5 (E) ROOF MOUNTED EQUIPMENT
- 6 (E) LOWER PATIO DECK
- 7 (E) STAIRS
- 8 (E) BUILDING ROOF
- 9 (E) ROOF ACCESS HATCH
- 10 (N) VERIZON SIGNAGE BELOW
- 11 (E) MECHANICAL CHASE ADJACENT TO ELEVATOR SHAFT
- 12 (E) ROOF DRAINS (TYPICAL)
- 13 APPROXIMATE CABLE ROUTE THROUGH SOFFIT OVER BREEZEWAY &
BETWEEN BUILDINGS
- 14 APPROXIMATE CABLE ROUTE TO BETA & GAMMA SECTORS IN CEILING
SPACE BETWEEN FIRST & SECOND FLOORS
- 15 (N) FRP TILE ROOFING TO MATCH (E) CONCRETE TILE ROOFING
- 16 MATCH (E) ROOF PITCH
- 17 VERTICAL CABLE ROUTE TO ROOF IN DEAD SPACE ADJACENT TO ELEVATOR

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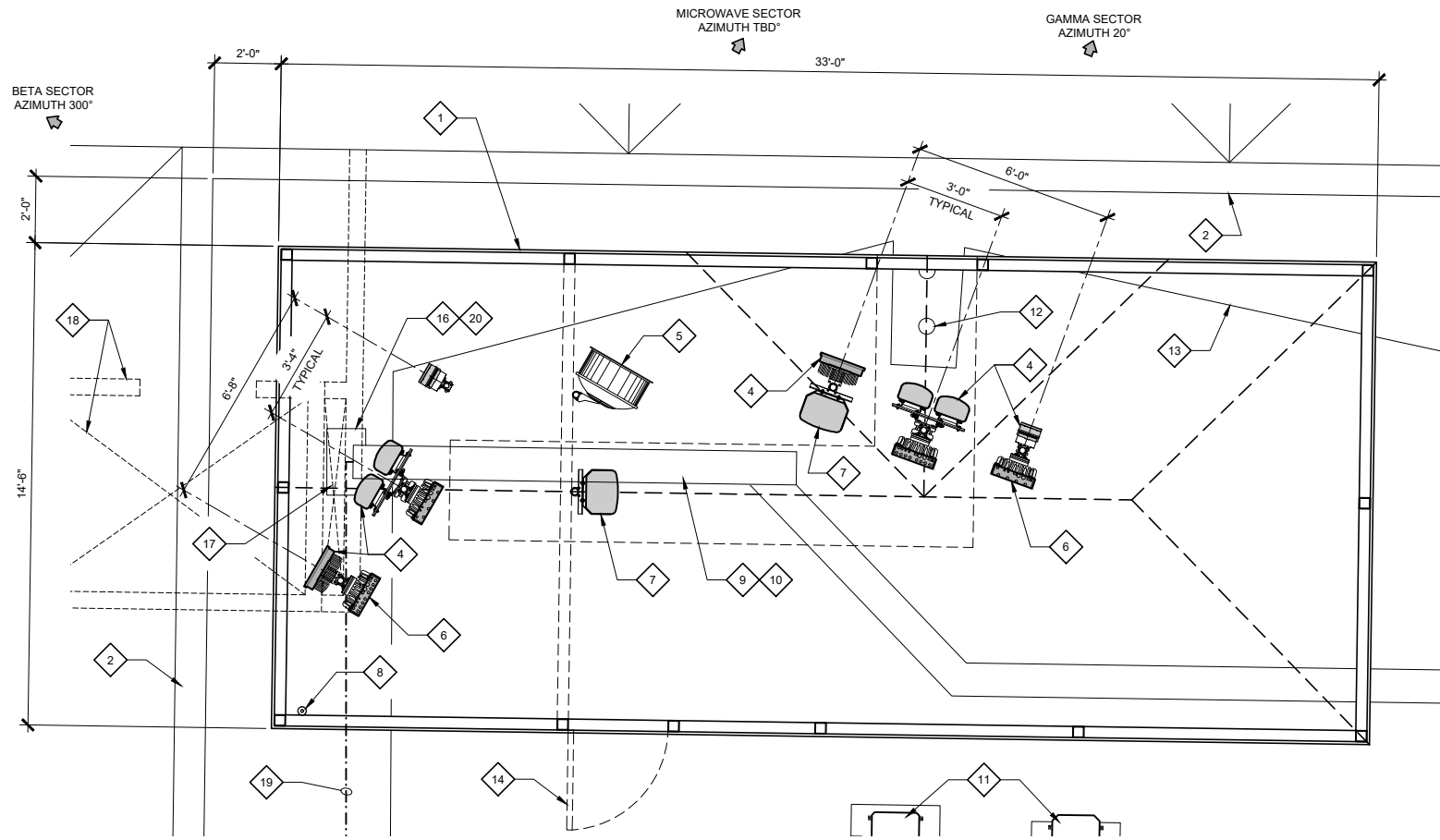
verizon
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**SELVA HILL
RELO**
PROJECT I.D. 15949473
34085 COAST HWY
DANA POINT, CA 92629

SHEET TITLE:

ROOF PLAN

A-2



ANTENNA PLAN "GAMMA & BETA"

SCALE: 3/8" = 1'-0"



RFDS DATED: 01/31/2024

SECTOR	DIRECTION	AZIMUTH	MODEL	SIZE	RAD CENTER	RADIO TYPE	NUMBER OF CABLES PER SECTOR	COAX. CABLE LENGTH (+/- 5')	SURGE SUPPRESSOR	JUMPER LENGTH (+/- 3')
ALPHA1	SOUTHEAST	100°	ERICSSON: AIR6419	31.3" L X 16.1" W X 9.8" D	23'-3"	INTEGRAL WITH ANTENNA	(1) 12 X 24 HYBRID CABLE	250'-0"	(1)	6'-0"
ALPHA2			COMMSCOPE: NHH-65A-R2B	55.6" L X 11.9" W X 7.1" D		(1) RRU 4890				
ALPHA3			COMMSCOPE: NHH-65A-R2B	55.6" L X 11.9" W X 7.1" D		(1) RRU 4490				
ALPHA4			ERICSSON: KRE105281/1	8.4" L X 7.9" W X 4.9" D		INTEGRAL WITH ANTENNA				
BETA1	NORTHWEST	300°	ERICSSON: AIR6419	31.3" L X 16.1" W X 9.8" D	38'-9"	INTEGRAL WITH ANTENNA	(1) 12 X 24 HYBRID CABLE	98'-0"	(1)	6'-0"
BETA2			COMMSCOPE: NHH-65A-R2B	55.6" L X 11.9" W X 7.1" D		(1) RRU 4890				
BETA3			COMMSCOPE: NHH-65A-R2B	55.6" L X 11.9" W X 7.1" D		(1) RRU 4490				
BETA4			ERICSSON: KRE105281/1	8.4" L X 7.9" W X 4.9" D		INTEGRAL WITH ANTENNA				
GAMMA1	NORTHEAST	20°	ERICSSON: AIR6419	31.3" L X 16.1" W X 9.8" D	38'-9"	INTEGRAL WITH ANTENNA	(1) 12 X 24 HYBRID CABLE	118'-0"	(1)	6'-0"
GAMMA2			COMMSCOPE: NHH-65A-R2B	55.6" L X 11.9" W X 7.1" D		(1) RRU 4890				
GAMMA3			COMMSCOPE: NHH-65A-R2B	55.6" L X 11.9" W X 7.1" D		(1) RRU 4490				
GAMMA4			ERICSSON: KRE105281/1	8.4" L X 7.9" W X 4.9" D		INTEGRAL WITH ANTENNA				
MICROWAVE	TBD	TBD	TBD	4'-0"Ø						32'-0"

NOTES:

- ① INSTALL (16) ANTENNAS: (3) ERICSSON KRE105281/1: 8.4" LENGTH X 7.9" WIDE X 4.9" DEEP, WEIGHT: 11.0 LBS
(6) COMMSCOPE NHH-65A-R2B: 55.6" LENGTH x 11.9" WIDE x .7.1" DEEP, WEIGHT: 35.1 LBS
(3) ERICSSON AIR6419: 31.3" LENGTH X 16.1" WIDE X 9.8" DEEP, WEIGHT: 63.05 LBS

- ② INSTALL (1) 12 x 24 HYBRID FIBER POWER CABLE FOR EACH SECTOR (TOTAL OF 3)

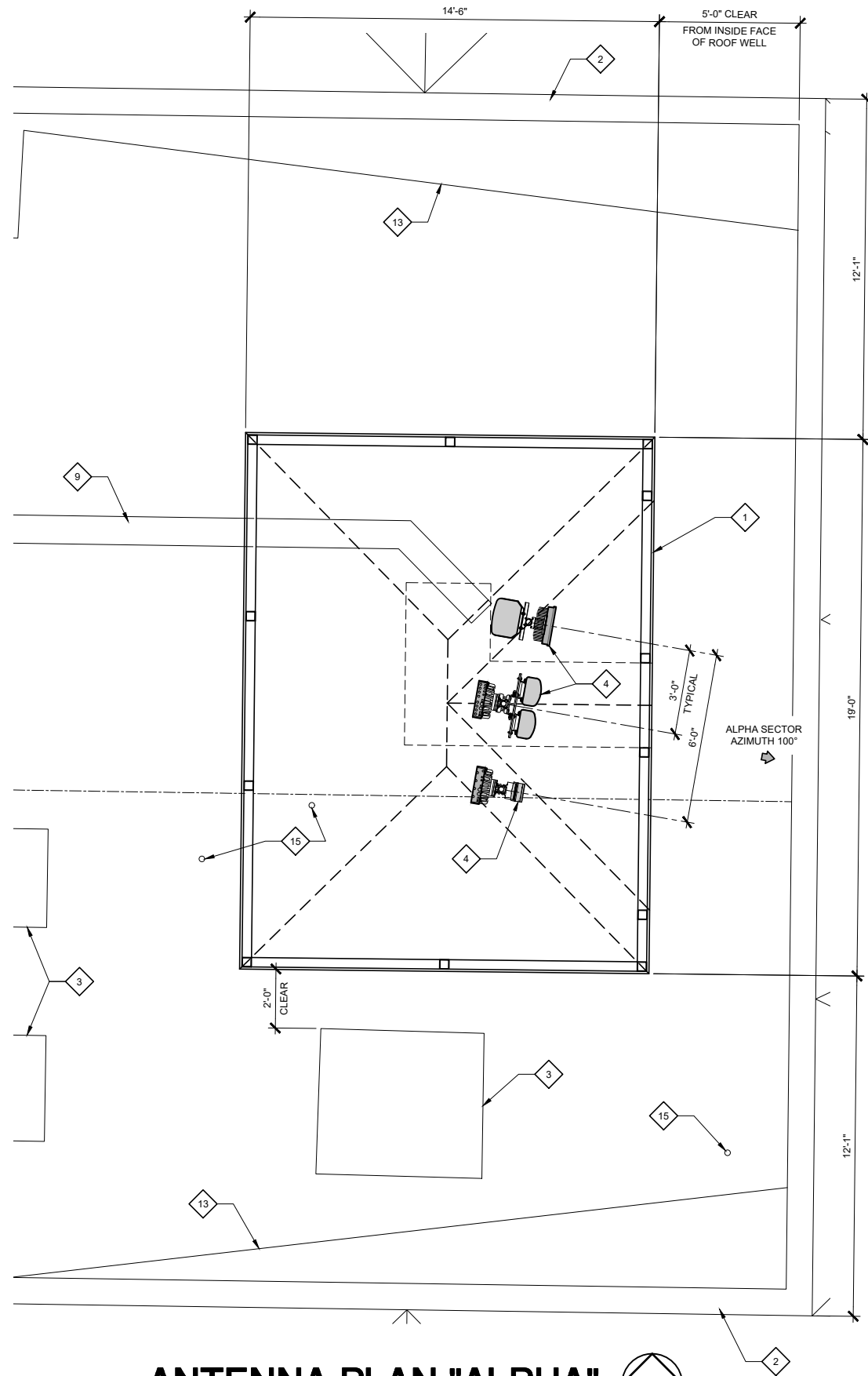
- ③ INSTALL (1) DEMARCATION JUNCTION BOX (RAYCAP SURGE SUPPRESSOR) FOR EACH SECTOR (TOTAL OF 3) SEE DETAILS

- ④ INSTALL (2) RRU UNITS FOR EACH SECTOR, (TOTAL OF 6). SEE DETAILS

- ⑤ 4408-B48 RRU UNITS ARE INTEGRAL WITH KRE105281/1 ANTENNAS

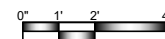
KEYED NOTES:

- ① (N) FRP SCREENED ROOFTOP ENCLOSURE SHALL BE DETAILED, PAINTED & TEXTURED TO MATCH (E) ADJACENT WALL & ROOF SURFACES.
- ② (E) PARAPET
- ③ (E) ROOF MOUNTED EQUIPMENT
- ④ (N) VERIZON ANTENNAS, TOTAL OF 12
- ⑤ (N) VERIZON 2'-0"Ø MICROWAVE ANTENNA, TOTAL OF 1
- ⑥ (N) VERIZON RRU RADIO UNIT, TOTAL OF 6
- ⑦ (N) VERIZON RAYCAP, TOTAL OF 3
- ⑧ (N) VERIZON GPS ANTENNA
- ⑨ (N) VERIZON CABLE TRAY
- ⑩ (N) VERIZON 6 x 12 HYBRID CABLE INSIDE CABLE TRAY, TOTAL OF 3
- ⑪ (N) MECHANICAL UNITS ON PTDF SLEEPERS ON ROOF (TYPICAL OF 2)
- ⑫ (E) ROOF DRAINS
- ⑬ (E) DRAINAGE CRICKETS
- ⑭ (N) ACCESS PANEL
- ⑮ (E) ROOF VENT
- ⑯ (N) GALVANIZED STEEL DOGHOUSE AT TOP OF CHASE
- ⑰ CABLE ROUTE THROUGH (E) MECHANICAL SHAFT BELOW (SHOWN DASHED)
- ⑱ (E) ELEVATOR SHAFT BELOW (SHOWN DASHED)
- ⑲ APPROXIMATE CABLE ROUTE TO BETA & GAMMA SECTORS IN CEILING SPACE BETWEEN FIRST & SECOND FLOORS
- ⑳ VERTICAL CABLE ROUTE TO ROOF IN DEAD SPACE ADJACENT TO ELEVATOR



ANTENNA PLAN "ALPHA"

SCALE: 3/8" = 1'-0"



ISSUE STATUS

REV.	DATE	DESCRIPTION	BY
0	11/17/2021	90% ZD	RD
1	01/20/2023	DRM COMMENTS	JN
2	04/11/2023	DRM COMMENTS	RL
3	04/21/2023	100% ZD DRM REVS	RL
4	08/10/2023	HEIGHT DETERMINATION	RL
5	08/24/2023	COORDINATE W/ SURVEY	RL
6	12/22/2023	ROOFTOP REDESIGN	RL
7	04/18/2024	REVISED 90% ZD	RL
8	04/30/2024	REVISED ALPHA SECTOR	RL

PLANCON
TELECOMMUNICATIONS PROJECT MANAGEMENT

16776 BERNARDO CENTER DR.
UNIT 203
SAN DIEGO, CA 92128

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15505 SAND CANYON AVENUE
BUILDING C
IRVINE, CA 92618

SELVA HILL

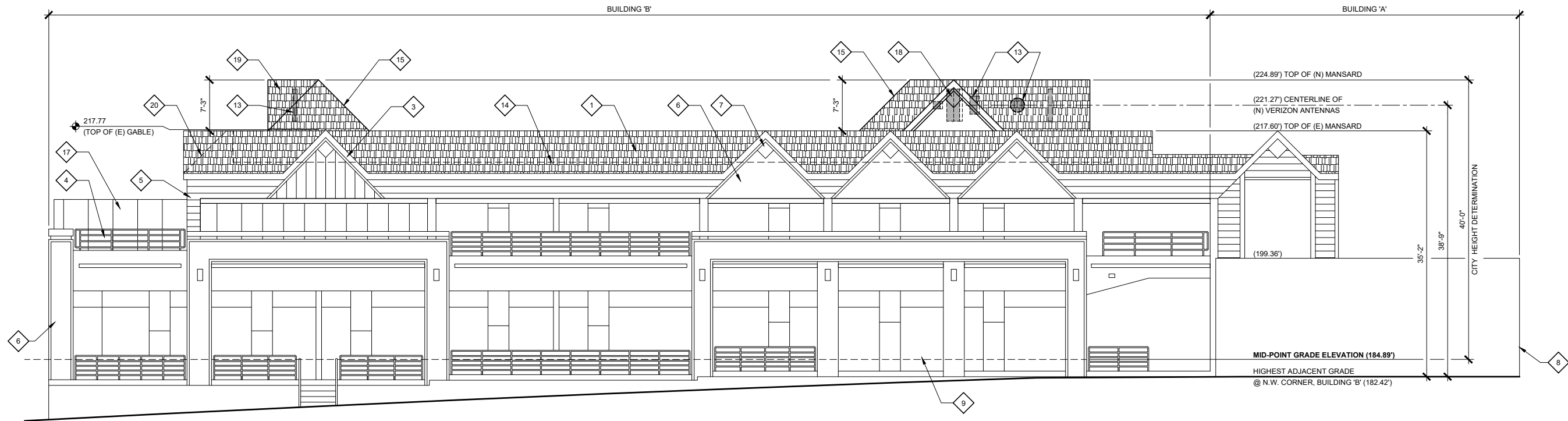
RELO

PROJECT I.D. 15949473
34085 COAST HWY
DANA POINT, CA 92629

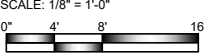
SHEET TITLE:

ANTENNA PLANS

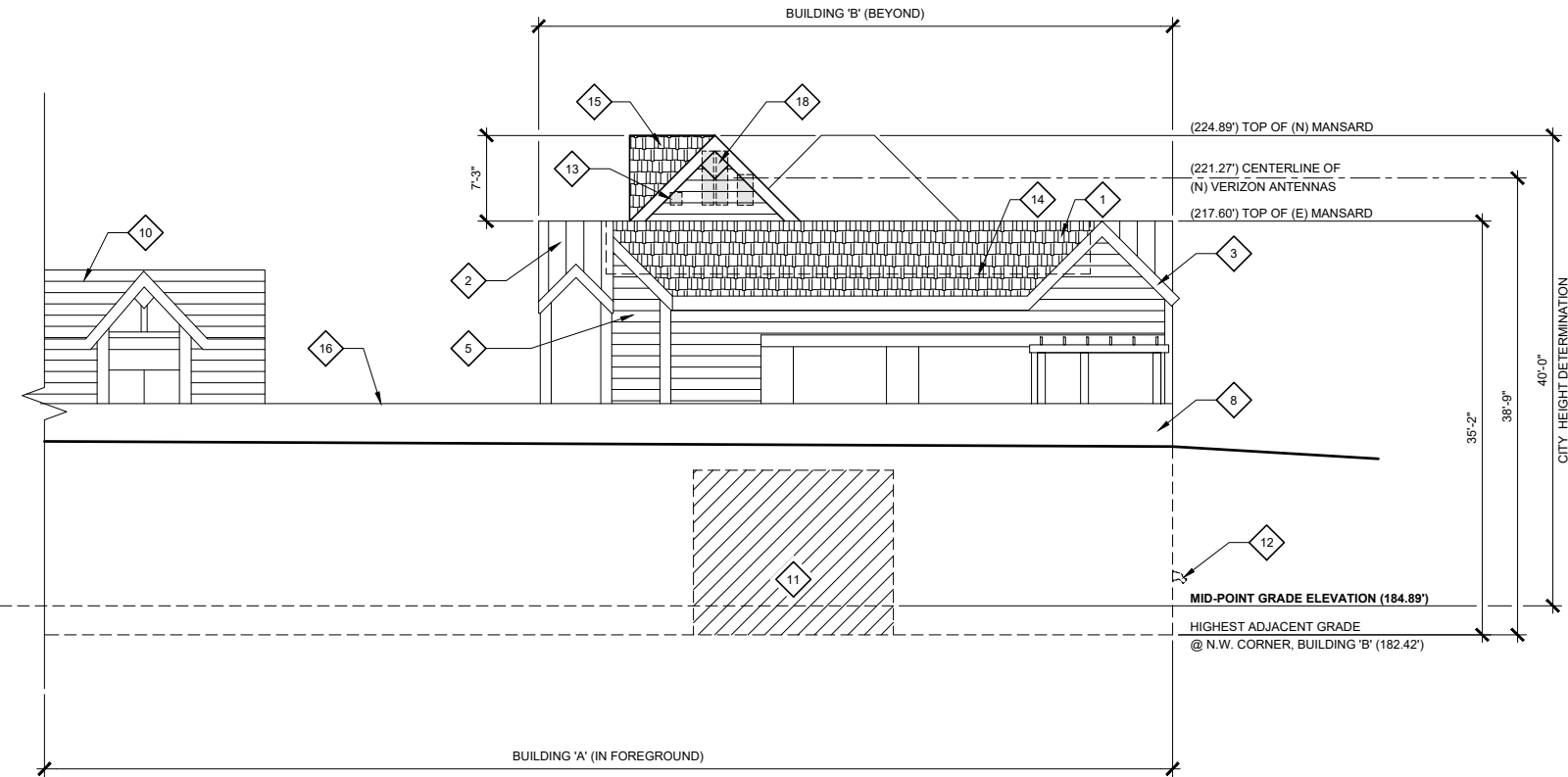
A-3



NORTH ELEVATION



NOTE:
RF TRANSPARENT FRP SCREENED ROOFTOP ENCLOSURE
SHALL BE DETAILED, PAINTED & TEXTURED TO MATCH (E)
ADJACENT WALL & ROOF SURFACES.



WEST ELEVATION



KEYED NOTES:

- 1 (E) CONCRETE TILE ROOFING
- 2 (E) METAL RAISED RIB ROOFING
- 3 (E) WOOD TRIM
- 4 (E) STEEL RAILING
- 5 (E) WOOD SIDING
- 6 (E) STUCCO SIDING
- 7 (E) GRANITE PANEL
- 8 (E) CONCRETE BLOCK PARKING GARAGE WALLS
- 9 (E) STOREFRONT
- 10 (E) BUILDING 'A' RETAIL
- 11 (N) VERIZON EQUIPMENT INSIDE (E) STORAGE ROOM
- 12 (N) REVERSE SERVICE GENERATOR RECEPTACLE AT GRADE ADJACENT TO MAIN ELECTRICAL ROOM DOOR (BEYOND)
- 13 (N) VERIZON PANEL & MICROWAVE ANTENNAS MOUNTED BEHIND A (N) FRP SCREENED ROOFTOP ENCLOSURE AND (N) FRP ANTENNA SCREEN.
- 14 LINE FOR ROOF DECK BEYOND
- 15 MATCH (E) ROOF PITCH
- 16 TOP OF WALL & HEDGE
- 17 (E) GREEN SCREEN AROUND DECK AREA
- 18 MATCH (E) GRANITE PANEL WITH FRP MATERIAL
- 19 (N) CONCRETE TILE ROOFING TO MATCH (E)
- 20 (E) SLOPED ROOF BEYOND

ISSUE STATUS

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8	04/30/2024	REVISED ALPHA SECTOR	RL



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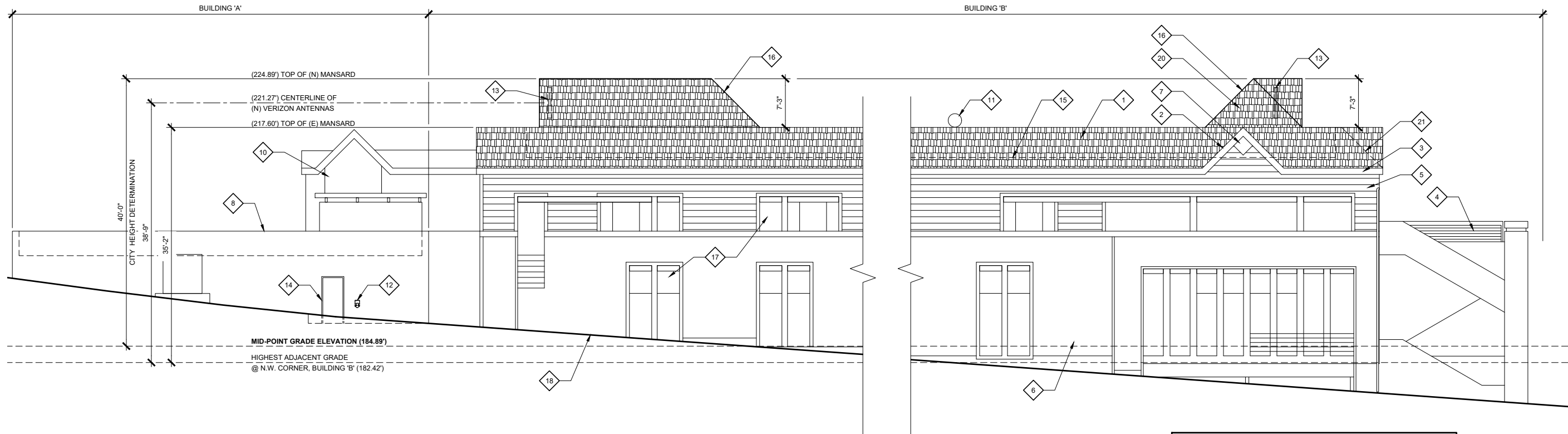
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**SELVA HILL
RELO**
PROJECT I.D. 15949473
34085 COAST HWY
DANA POINT, CA 92629

SHEET TITLE:

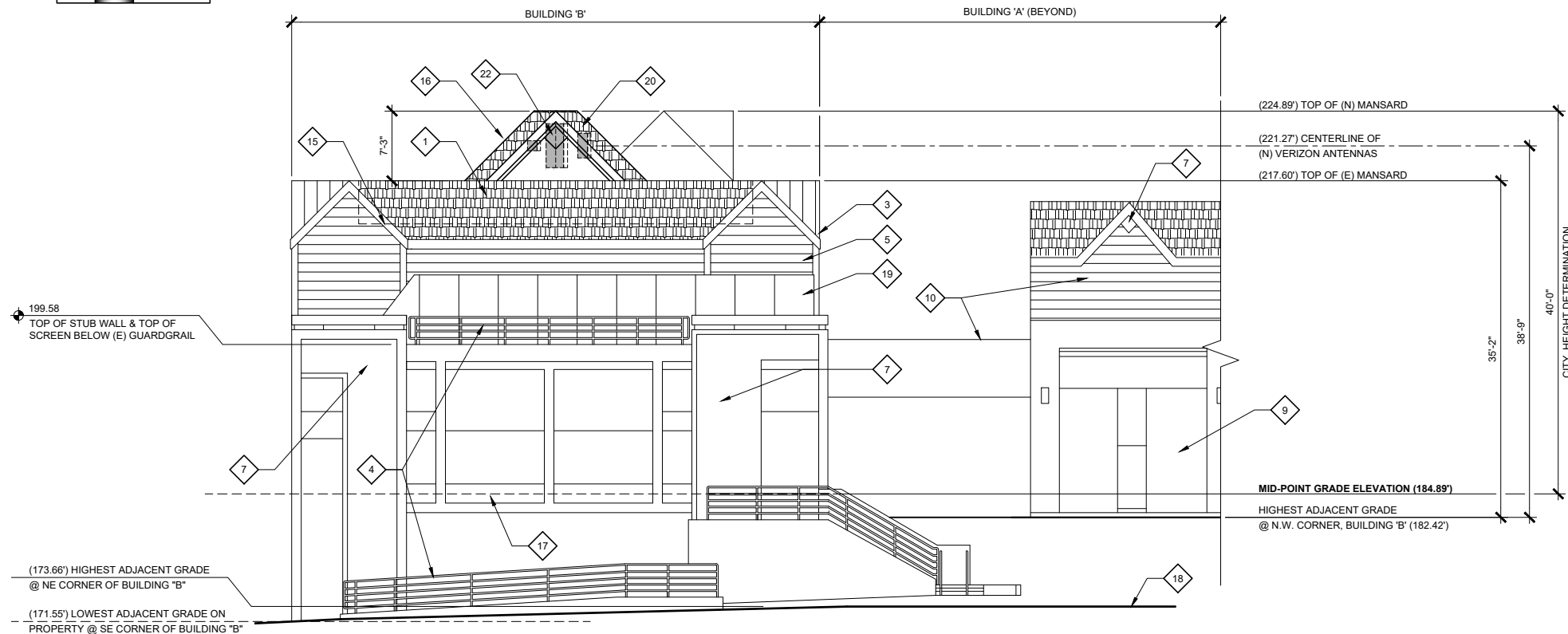
EXTERIOR ELEVATIONS

A-4



SOUTH ELEVATION

SCALE: 1/8" = 1'-0"
0" 4" 8" 16"



EAST ELEVATION

SCALE: 1/8" = 1'-0"
0" 4" 8" 16"

NOTE:
RF TRANSPARENT FRP SCREENED ROOFTOP ENCLOSURE
SHALL BE DETAILED, PAINTED & TEXTURED TO MATCH (E)
ADJACENT WALL & ROOF SURFACES.

KEYED NOTES:

- 1 (E) CONCRETE TILE ROOFING
- 2 (E) ROOF DORMER
- 3 (E) WOOD TRIM
- 4 (E) STEEL RAILING
- 5 (E) WOOD SIDING
- 6 (E) STUCCO SIDING
- 7 (E) GRANITE PANEL
- 8 (E) BUILDING 'A', CONCRETE BLOCK PARKING GARAGE WALLS
- 9 (E) STOREFRONT
- 10 (E) BUILDING 'A' RETAIL IN BACKGROUND
- 11 (E) SATELLITE ANTENNA
- 12 (N) REVERSE SERVICE GENERATOR RECEPTACLE AT GRADE ADJACENT TO MAIN ELECTRICAL ROOM DOOR
- 13 (N) VERIZON PANEL & MICROWAVE ANTENNAS MOUNTED BEHIND A (N) FRP SCREENED ROOFTOP ENCLOSURE
- 14 (E) DOOR TO MAIN ELECTRICAL ROOM
- 15 LINE FOR ROOF DECK BEYOND
- 16 MATCH (E) ROOF PITCH
- 17 (E) WINDOWS
- 18 (E) GRADE
- 19 (E) GREEN SCREEN
- 20 (N) CONCRETE TILE ROOFING TO MATCH (E)
- 21 (E) SLOPED ROOF BEYOND
- 22 MATCH (E) GRANITE PANEL WITH FRP MATERIAL

ISSUE STATUS

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6	12/22/2023	ROOFTOP REDESIGN	RL
7	04/18/2024	REVISED 90% ZD	RL
8	04/30/2024	REVISED ALPHA SECTOR	RL

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TELECOMMUNICATIONS PROJECT MANAGEMENT

16776 BERNARDO CENTER DR,
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IRVINE, CA 92618

**SELVA HILL
RELO**
PROJECT I.D. 15949473
34085 COAST HWY
DANA POINT, CA 92629

SHEET TITLE:

EXTERIOR ELEVATIONS

A-5

COMMSCOPE NHH-65A-R2B

COLOR: LIGHT GRAY

DIMENSIONS, HxWxD: 55.6" x 11.9" x 7.1"

WEIGHT: 35.1 lbs

WIND LOAD: FRONTAL: 206.0 N @ 150 km/h
LATERAL: 169.0 N @ 150 km/h

RF CONNECTOR INTERFACE: 7-16 DIN FEMALE

RF CONNECTOR LOCATION: BOTTOM

RF CONNECTOR QUANTITY: 2 LOW BAND
4 HIGH BAND

11.9"

7.1"

55.6"

11.9"

7.1"

FRONT VIEW

SIDE VIEW

BOTTOM VIEW

ERICSSON AIR 6419

DIMENSIONS, HxWxD: 31.3" x 16.1" x 9.8"

WEIGHT: 63.05 lbs

16.1"

9.8"

31.3"

9.8"

PLAN VIEW

FRONT VIEW

SIDE VIEW

RADIO 4408 B48 DC, WITH ANTENNA

CAPACITY AND SPECIFICATIONS
- 4TX / 4RX - 6 LTE CARRIERS
- UP TO 4x5W - 2x 10.1Gbps CPRI
- 120Mhz IBW

OTHER SPECIFICATIONS
- AC or -48 VDC - 2 external alarm
- Integrated or external antenna - IP 65, -40 to +55°C

HEIGHT 8.38 in. (213 mm)

WIDTH 7.87 in. (200 mm)

DEPTH 4.92 in. (125 mm)

WEIGHT 11.02 lbs. (5 Kg)

7.87"

4.92"

8.38"

7.87"

TOP VIEW

FRONT VIEW

SIDE VIEW

BOTTOM VIEW

(N) GALVANIZED STEEL MOUNTING PIPE

(N) MOUNTING BRACKET FROM MANUFACTURER

(N) ANTENNA. SEE DETAIL 2 D1

(N) MOUNTING BRACKET FROM MANUFACTURER

2

D1

ANTENNA SPECIFICATIONS

SCALE: N.T.S.

1

ANTENNA SPECIFICATIONS

SCALE: N.T.S.

2

RADIO 4408 W/ ANTENNA, SINGLE RADIO

SCALE: N.T.S.

3

ANTENNA MOUNT

SCALE: N.T.S.

4

(N) (2) 3/8"Ø GALVANIZED STEEL U-BOLTS

(N) OR (E) 2"Ø SCHEDULE 40 GALVANIZED STANDARD (ASTM 53 GRADE B) STEEL PIPE MOUNT

PLAN A

(N) RAYCAP SURGE SUPPRESSOR DISTRIBUTION UNIT. SEE DETAIL 6 D1

(N) (4) 3/8"Ø GALVANIZED FASTENERS FOR MOUNTING FRAME TO DISTRIBUTION BOX

(N) (2) 3/8"Ø GALVANIZED STEEL U-BOLTS

(N) STAINLESS STEEL MOUNTING FRAME PROVIDED WITH UNIT. INSTALL PER MANUFACTURER'S SPECIFICATIONS

ELEVATION

RAYCAP SURGE SUPPRESSOR

RAYCAP RVZDC-3315-PF-48 WITH SURGE SUPPRESSOR

WEIGHT: 26.9 LBS.

*VERIFY ALL DIMENSIONS AND WEIGHT WITH MANUFACTURER

19.18"

15.73"

19.8"

10.25"

FRONT VIEW

SIDE VIEW

BOTTOM VIEW

STAINLESS STEEL MOUNTING BRACKET BY MANUFACTURER

(N) GALVANIZED STEEL MOUNTING PIPE

(N) RADIO/ANTENNA. SEE DETAIL 3 D1

(N) MOUNTING BANDS PROVIDED BY ANTENNA MANUFACTURER

3

D1

(E) 2x STUD WALL

(N) RADIO UNIT. SEE DETAILS 10 D1 11 D1

(N) (2) UNISTRUT P1000T x 18" LONG (TYPICAL) ATTACHED W/ (3) 1/2"Ø LAG SCREWS INTO EACH STUD & 1-1/2" MIN. EMBED.

(N) ERICSSON MOUNTING BRACKET ATTACHED TO (N) UNISTRUTS WITH MANUFACTURER SUPPLIED HARDWARE

(N) ERICSSON RAIL MOUNTING BRACKET. (1) PER RADIO UNIT

RAYCAP UNIT MOUNTING

SCALE: 1" = 1'-0"

5

RAYCAP SURGE SUPPRESSOR UNIT

SCALE: N.T.S.

6

RADIO/ANTENNA MOUNT

SCALE: N.T.S.

7

RRU MOUNTING @ ALPHA SECTOR

SCALE: N.T.S.

8

COMMSCOPE 4-TX ANTENNA MOUNT

COMMSCOPE PART #: BSAMNT-SBS-1-2

MATERIAL: GALVANIZED STEEL

WEIGHT: 25.57 LBS. (11.6 kg)

COMPATIBLE MOUNTING PIPE SIZES: 4.50" Ø MAXIMUM (115.0 mm)
2.40" Ø MINIMUM (60.0 mm)

(N) ANTENNA (SHOWN DASHED) 1 D1

(N) GALVANIZED STEEL ANTENNA MOUNTING PIPE

(E) ANTENNA MOUNTING BRACKET (TYPICAL OF 2)

(N) ANTENNA (SHOWN DASHED) 1 D1

PLAN VIEW

ELEVATION VIEW

RADIO 4490

4 COMMON RF PORTS (C)
B5: 4X60W, B13: 4X60W
480 W TOTAL RF OUTPUT POWER
L, NR, NB-IoT
2x 2.5/4.9/9.8/10.1/24.3 Gbps CPRI/eCPRI

HEIGHT 20.6 in. (522 mm)

WIDTH 15.7 in. (397 mm)

DEPTH 7.0 in. (178 mm)

WEIGHT 68.4 lbs. (31.0 Kg)

-48 VDC 2-WIRE (ONE DC CONNECTOR INPUT)
AISG V3.0 TMA & RET SUPPORT VIA RS-485 OR RF CONNECTORS
TYPE 4.3-10 RF + CONNECTORS
2 EXTERNAL ALARMS
CONVECTIONAL COOLING
OPTIONAL FAN FOR INCREASED SITE FLEXIBILITY
IP 65, -40 to +55 °C

15.7"

7.0"

20.6"

7.0"

TOP VIEW

FRONT VIEW

SIDE VIEW

RADIO 4890

8 RF PORTS, 4T8R PER BAND (5 FOR TX)
B2: 4X60W
B66: 4X60W
UP TO 480W IN TOTAL RF POWER
L, NR, NB-IoT
2x 2.5/4.9/9.8/10.1/24.3 Gbps CPRI/eCPRI

HEIGHT 20.6 in. (522 mm)

WIDTH 15.7 in. (397 mm)

DEPTH 7.2 in. (182 mm)

WEIGHT 69.5 lbs. (31.5 Kg)

-48 VDC 2-WIRE (SINGLE DC-CONNECTOR).
AISG V3.0 TMA & RET SUPPORT VIA RS-485 OR RF CONNECTORS
TYPE 4.3-10 RF + CONNECTORS
2 EXTERNAL ALARMS
CONVECTIONAL COOLING
OPTIONAL FAN FOR INCREASED SITE FLEXIBILITY
IP 65, -40 to +55 °C

15.7"

7.2"

20.6"

7.2"

TOP VIEW

FRONT VIEW

SIDE VIEW

(E) 2x STUD WALL

(N) RADIO UNIT. SEE DETAILS 10 D1 11 D1

(N) (2) UNISTRUT P1000T x 18" LONG (TYPICAL) ATTACHED W/ (3) 1/2"Ø LAG SCREWS INTO EACH STUD & 1-1/2" MIN. EMBED.

(N) ERICSSON MOUNTING BRACKET ATTACHED TO (N) UNISTRUTS WITH MANUFACTURER SUPPLIED HARDWARE

(N) ERICSSON RAIL MOUNTING BRACKET. (1) PER RADIO UNIT

8

D1

4-TX ANTENNA MOUNT

SCALE: N.T.S.

9

RRU 4490 SPECIFICATIONS

SCALE: N.T.S.

10

RADIO 4890 SPECIFICATIONS

SCALE: N.T.S.

11

RRU MOUNTING @ ALPHA SECTOR

SCALE: N.T.S.

12

ISSUE STATUS

REV.	DATE	DESCRIPTION	BY
0	11/17/2021	90% ZD	RD
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SELVA HILL
RELO

PROJECT ID. 15949473
34085 COAST HWY
DANA POINT, CA 92629

SHEET TITLE:

DETAILS

D-1

		<div><div><div><div><div>6"H</div><div><div><div>NOTICE</div><div>Transmitting Antenna(s) Radio frequency fields beyond this point MAY EXCEED the FCC General Population exposure limit. Obey all posted signs and site guidelines. Call Verizon at 1-800-264-6620 PRIOR to working beyond this point. Site ID/ PSLC: <div>verizon</div></div></div><div>1-44"H 2-2"H (SMALLEST LETTER) (4" CALIBRI FONT)</div></div></div><div>7.5"W</div></div><div><div><div>NOTICE</div><div>General Radio Frequency (RF) Safety Guidelines Until ALL applicable antennas have been deactivated, please observe the following: <div><div>Obey all posted signs.</div><div>Assume all antennas are transmitting.</div><div>Do not touch any antenna.</div><div>Do not stand in front of any antenna.</div><div>Do not walk in front of any antenna.</div><div>Do not walk beyond any signs, barriers, or visual markers towards any antenna.</div><div>Contact antenna owner or property owner if there are any questions or concerns.</div></div><div>verizon</div></div></div></div><div>NOTE: GENERAL CONTRACTOR SHALL CONFIRM SPECIFIC SIGNAGE AND LOCATION WITH THE RFE / EME STUDY AND THE VERIZON CONSTRUCTION MANAGER</div></div></div>				<div><div><div><div><div>1'-6"</div><div><div>THIS EQUIPMENT ROOM CONTAINS ENERGIZED BATTERY SYSTEMS LEAD ACID BATTERIES AND ENERGIZED CIRCUITS APPLY NO WATER ELECTROLYTE SOLUTIONS ARE CORROSIVE</div></div><div>1'-4"</div></div></div><div><div>MICARTA SIGN RED BACKGROUND WITH WHITE LETTERS</div><div>1" HELVETICA LETTERING</div><div>3/4" HELVETICA LETTERING</div><div>MOUNTING SCREWS</div></div></div><div>PLACED ON (1) VISIBLE SIDE OF (N) EQUIPMENT ROOM ENTRANCE</div><div>NOTE: GENERAL CONTRACTOR SHALL CONFIRM SPECIFIC SIGNAGE AND LOCATION WITH THE RFE / EME STUDY AND THE VERIZON CONSTRUCTION MANAGER</div></div>				<div><div><div><div><div>4'-0"</div><div><div><div>14" SQUARE</div><div>RED (FLAMMABILITY)</div><div>YELLOW (REACTIVITY)</div><div>NUMBERS & LETTERS SHALL BE REFLECTIVE</div><div>BLUE (HEALTH HAZARD)</div><div>WHITE (SPECIAL)</div></div></div></div></div><div>FOR BATTERIES</div><div>NOTE: GENERAL CONTRACTOR SHALL CONFIRM SPECIFIC SIGNAGE AND LOCATION WITH THE RFE / EME STUDY AND THE VERIZON CONSTRUCTION MANAGER</div></div></div>	
NOT USED	13	VERIZON NOTICE SIGNS	SCALE: N.T.S.	14	BATTERY CAUTION SIGN	SCALE: N.T.S.	15	NFPA 704 PLACARDS	SCALE: N.T.S.	16	
				<div><div><div><div><div>(N) MOUNTING PIPE</div><div><div>(N) ERICSSON MOUNTING BRACKET ATTACHED TO (N) MOUNTING PIPE WITH MANUFACTURER SUPPLIED HARDWARE</div><div>(N) ERICSSON RAIL MOUNTING BRACKET. (1) PER RADIO UNIT</div></div></div><div><div>(N) RADIO UNIT. SEE DETAILS</div><div><div>10 D1</div><div>11 D1</div></div></div></div></div></div>		<div><div><div><div><div>(N) MOUNTING PIPE</div><div><div>(N) ERICSSON MOUNTING BRACKET ATTACHED TO (N) MOUNTING PIPE WITH MANUFACTURER SUPPLIED HARDWARE</div><div>(N) ERICSSON RAIL MOUNTING BRACKET. (1) PER RADIO UNIT</div></div></div><div><div>(N) RADIO UNIT. SEE DETAILS</div><div><div>10 D1</div><div>11 D1</div></div></div></div></div></div>					
NOT USED	17	NOT USED		18	RADIO UNIT MOUNTING	SCALE: N.T.S.	19	RADIO UNIT MOUNTING	SCALE: N.T.S.	20	
NOT USED	21	NOT USED		22	NOT USED		23	NOT USED		24	

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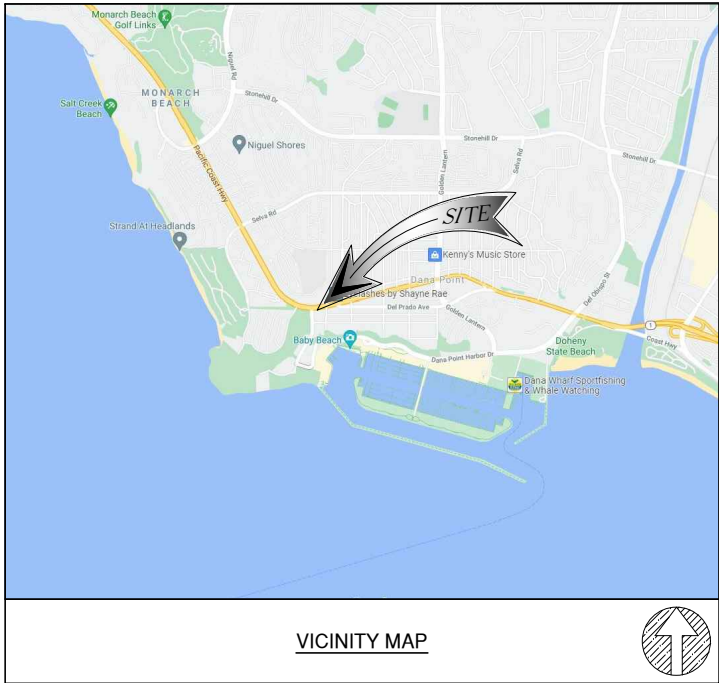
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SELVA HILL
RELO

PROJECT I.D. - 15949473
34085 COAST HWY
DANA POINT, CA 92629

SHEET TITLE:
DETAILS

D-2



APN
672-231-06 AND 672-231-07, ORANGE COUNTY, CALIFORNIA

RECORD OWNER
BLUE LANTERN PROPERTY LLC, A CALIFORNIA LIMITED LIABILITY COMPANY

TITLE REPORT
TITLE REPORT WAS PREPARED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY WITH ORDER NO. 92020481-920-CM8 DATED MARCH 31, 2023.

BASIS OF BEARING
THE CENTERLINE OF SANTA CLARA AVE BEARING N 89°07'22" W WAS USED AS THE BASIS OF BEARING FOR THIS SURVEY.

BASIS OF ELEVATIONS: (NAVD 1988)

SITE ELEVATIONS ARE ESTABLISHED FROM THE GPS DERIVED ORTHOMETRIC HEIGHTS BY APPLICATION OF NGS "GEOID 12A" MODELED SEPARATIONS TO ELLIPSOID HEIGHTS DETERMINED BY OBSERVATIONS OF THE "LEICA SMARTNET" REAL TIME NETWORK. ALL ELEVATIONS SHOWN HEREON ARE REFERENCED TO NAVD88. CALIFORNIA ZONE 6.

FLOOD ZONE
SITE IS LOCATED IN FLOOD ZONE "X" AS PER F.I.R.M. MAP NO. 06059C0504K EFFECTIVE DATE 03/21/2019

LEGAL DESCRIPTION
ALL THAT CERTAIN REAL PROPERTY SITUATED IN THE CITY OF DANA POINT, COUNTY OF ORANGE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL A:
LOTS 1, 2, 3, AND 4 IN BLOCK "F" OF TRACT NO. 573, IN THE CITY OF DANA POINT, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS SHOWN ON A MAP RECORDED IN BOOK 20, PAGE 29 OF MISCELLANEOUS MAPS, RECORDS OF ORANGE COUNTY, CALIFORNIA.

PARCEL B:
THAT PORTION OF TRACT NO. 573, AS SHOWN ON A MAP RECORDED IN BOOK 20, PAGE 29 OF MISCELLANEOUS MAPS, RECORDS OF ORANGE COUNTY, CALIFORNIA BOUNDED AS FOLLOWS:
ON THE SOUTH BY THE NORTH LINES OF LOT 3 AND 4 IN BLOCK "F" SAID TRACT, ON THE NORTH BY THE SOUTH LINES OF LOTS 1 AND 2 IN SAID BLOCK "F," ON THE EAST BY THE NORTHERLY PROLONGATION OF THE EAST LINE OF SAID LOT 3, AND ON THE WEST BY THE NORTHERLY PROLONGATION OF THE WEST LINE OF SAID LOT 4, AS VACATED BY RESOLUTION NO. 89-52 OF THE CITY COUNCIL OF THE CITY OF DANA POINT, A CERTIFIED COPY OF WHICH WAS RECORDED JUNE 21, 1991 AS INSTRUMENT NO. 91-320831 OF OFFICIAL RECORDS OF SAID ORANGE COUNTY.

SCHEDULE B

ITEMS A-E ARE TAX/LIEN RELATED
ITEM 1 IS WATER RIGHTS RELATED
ITEMS 2,6,7 ARE COVENANTS, CONDITIONS AND RESTRICTIONS NOT RELATED TO THE SURVEY OF THE LAND
ITEM 3 IS A RESOLUTION
ITEMS 8-12 ARE NOTICE RELATED
ITEMS 13 AND 14 ARE DISCLAIMERS

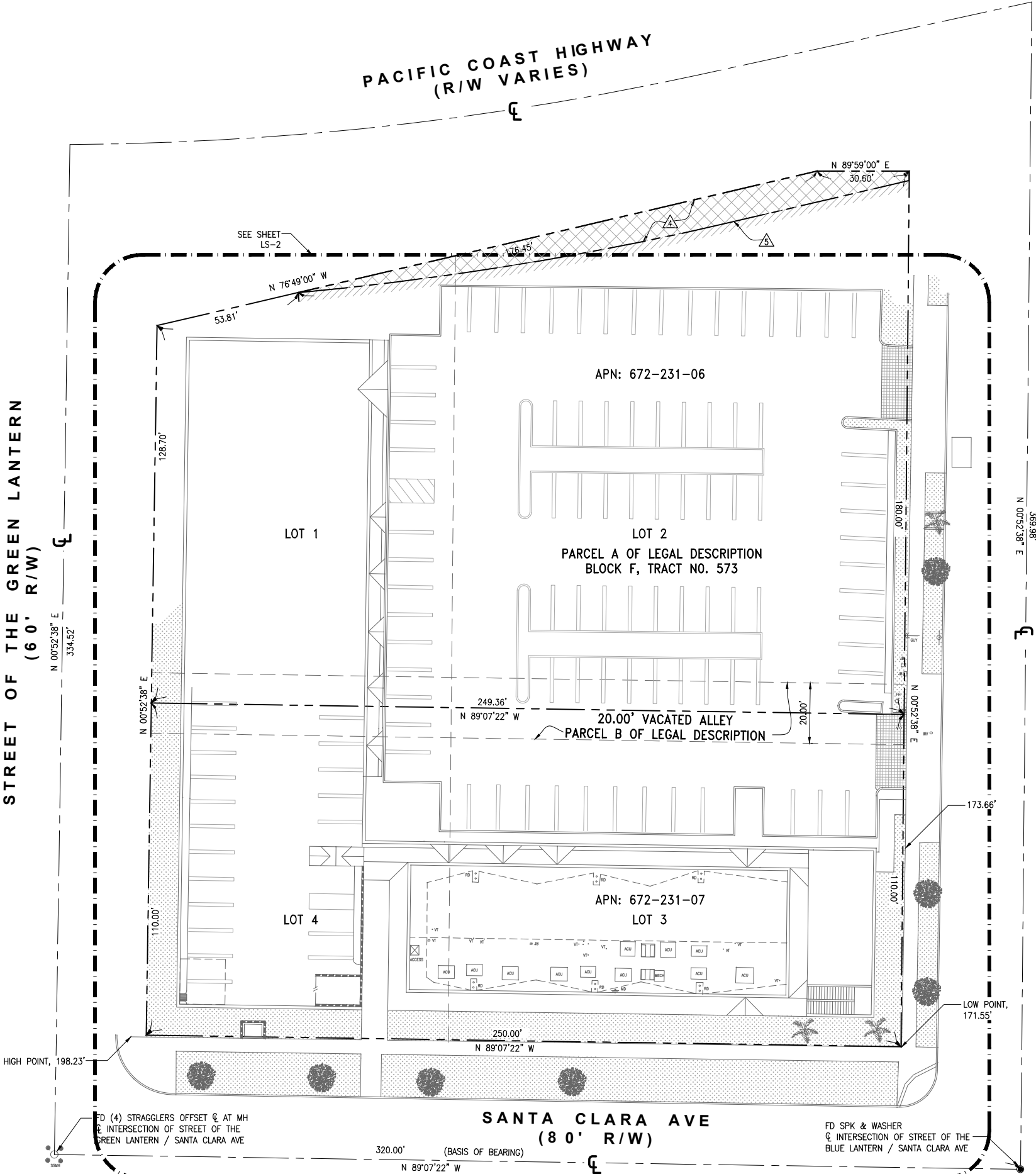
4 EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: STATE OF CALIFORNIA
PURPOSE: STATE HIGHWAY
RECORDING DATE: APRIL 29, 1932
RECORDING NO: BOOK 549 PAGE 304 OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND

THE OWNERSHIP OF SAID LAND DOES NOT INCLUDE RIGHTS OF ACCESS TO OR FROM THE STREET, HIGHWAY, OR FREEWAY ABUTTING SAID LAND, SUCH RIGHTS HAVING BEEN RELINQUISHED BY THE DOCUMENT.
RECORDING DATE: APRIL 29, 1932
RECORDING NO: BOOK 549 PAGE 304 OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND

REFERENCES

- TRACT NO 573
BK 20 PG 29
REC DATE: APR 16 1924
- TRACT NO 10793
BK 478 PG 46-47
REC DATE: OCT. 30, 1980
- TRACT NO. 11684
BK 540 PG 32-34
REC DATE: JUN 3, 1985
- TRACT NO. 16331
BK 875 PG 22
REC DATE: DEC 19, 2005
- PARCEL MAP
BK 52 PG 57
REC DATE: JUN 13, 1973
- RECORD OF SURVEY
NO, 2003-1037
BK 197 PG 1-7
REC DATE: DEC 03, 2003

STREET OF THE GREEN LANTERN
(60' R/W)



ISSUE STATUS

REV.	DATE	DESCRIPTION	BY
0	04/26/21	PRELIMINARY SURVEY	AB
1	05/05/23	FINAL SURVEY	LJ
2	08/08/23	UPDATE SURVEY	LJ
3	08/14/23	PARAPET/CABLE ELEVATION UPDATE	LJ
4	08/25/23	FINISH SURFACE UPDATE	LJ



23072 LAKE CENTER DR., SUITE 211
LAKE FOREST, CA 92630
714.624.9027

PROPRIETARY INFORMATION
THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS PROPRIETARY & CONFIDENTIAL TO VERIZON WIRELESS

ANY USE OR DISCLOSURE OTHER THAN AS IT RELATES TO VERIZON WIRELESS IS STRICTLY PROHIBITED

verizon

15505 SAND CANYON AVENUE, D1
IRVINE, CA 92618



NCD
SELVA HILL

34085 PACIFIC COAST HWY
DANA POINT, CA 92629

SHEET TITLE:

TITLE DETAILS

LS-1

LEGEND

	CENTER LINE
	PROPERTY LINE
	CHAIN-LINK FENCE
	WOOD FENCE
	WROUGHT IRON FENCE
	EASEMENT LINE
	CMU WALL
	TW TOP OF WALL
	TC TOP OF CURB
	BW BACK-OF-WALK
	FS FINISH SURFACE
	FG FINISH GRADE
	EG EXISTING GRADE
	RS ROOF SURFACE
	TPP TOP OF PARAPET
	JB JUNCTION BOX
	VT VENT
	VLT VAULT
	MD MICROWAVE DISH
	RD ROOF DRAIN
	WW WINDOW WASHER
	ACU AIR-CONDITION UNIT
	SSMH SANITARY SEWER MANHOLE
	SDMH STORM DRAIN MANHOLE
	EXISTING STREET LIGHT
	EXISTING SIGN
	GUY WIRE
	CATCH BASIN
	POWER POLE
	FIRE HYDRANT
	TREE

MONUMENTS

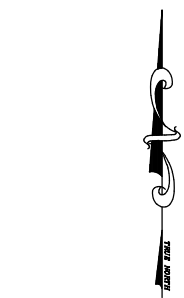
● MONUMENT FD.
(AS NOTED)

COORDINATES

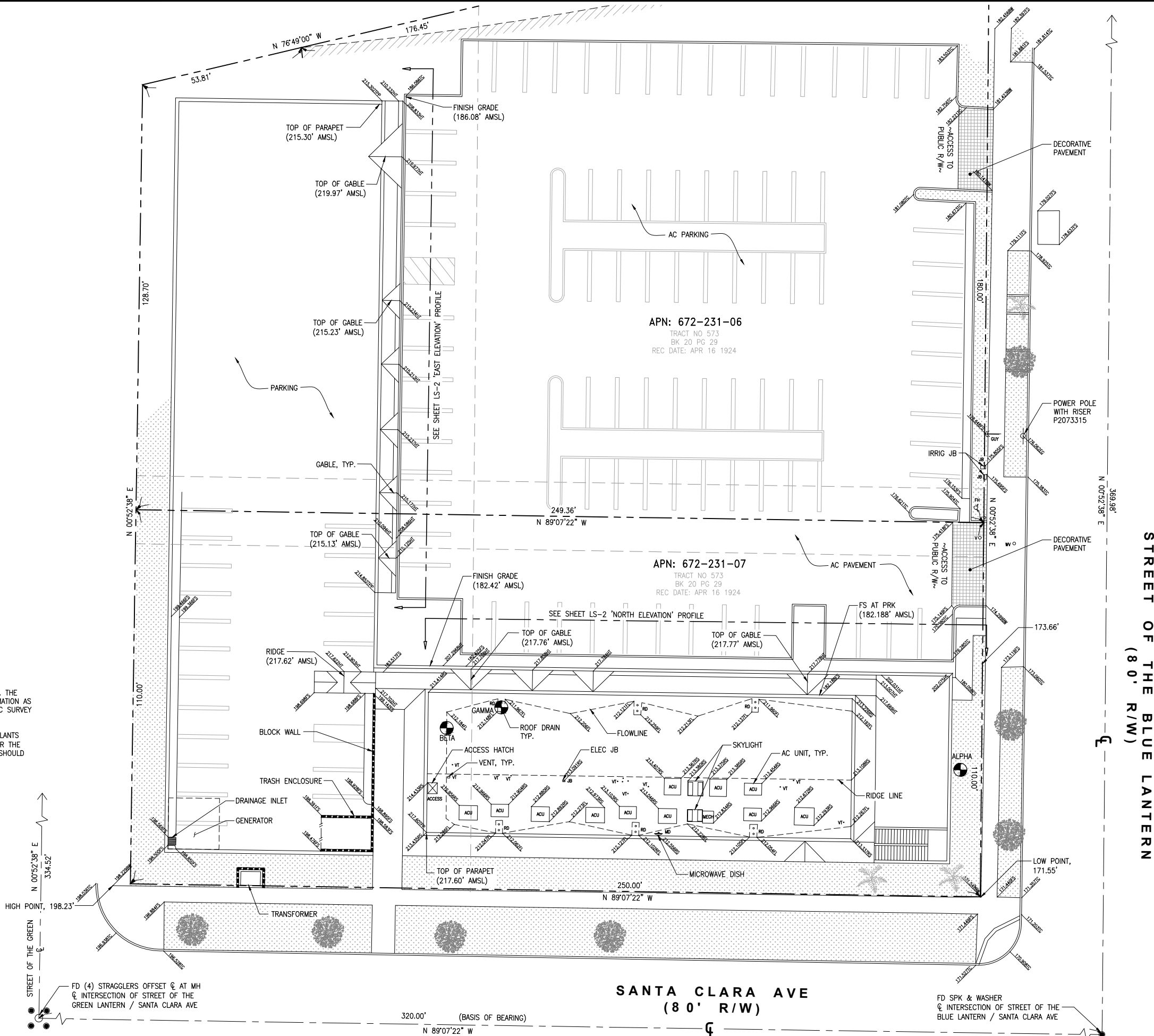
ALPHA	LATITUDE: 33°27'52.96" N (33.464711°)
	LONGITUDE: 117°42'24.47" W (-117.706797°)
BETA	LATITUDE: 33°27'53.06" N (33.464739°)
	LONGITUDE: 117°42'26.23" W (-117.707286°)
GAMMA	LATITUDE: 33°27'53.12" N (33.464756°)
	LONGITUDE: 117°42'26.05" W (-117.707236°)

NOTES:

- THIS IS NOT A BOUNDARY SURVEY. THIS IS A SPECIALIZED TOPOGRAPHIC MAP. THE PROPERTY LINES AND EASEMENTS SHOWN HEREON ARE FROM RECORD INFORMATION AS NOTED HEREON. A/K ENGINEERING AND SURVEY TRANSLATED THE TOPOGRAPHIC SURVEY TO RECORD INFORMATION USING FOUND MONUMENTS SHOWN HEREON.
- THE HEIGHTS AND ELEVATIONS FOR THE TREES, BUSHES AND OTHER LIVING PLANTS SHOWN HEREON, SHOULD BE CONSIDERED APPROXIMATE (+/-) AND ONLY FOR THE DATE OF THIS SURVEY. THEY ARE PROVIDED AS A GENERAL REFERENCE AND SHOULD NOT BE USED FOR DESIGN PURPOSES.
- FIELD SURVEY COMPLETED ON APRIL 22, 2021



15' 7.5' 0' 15' 30'
GRAPHIC SCALE: 1"=15'



ISSUE STATUS

REV.	DATE	DESCRIPTION	BY
0	04/26/21	PRELIMINARY SURVEY	AB
1	05/05/23	FINAL SURVEY	LJ
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714.624.9027

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RELATES TO VERIZON WIRELESS IS STRICTLY
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verizon

15505 SAND CANYON AVENUE, D1
IRVINE, CA 92618



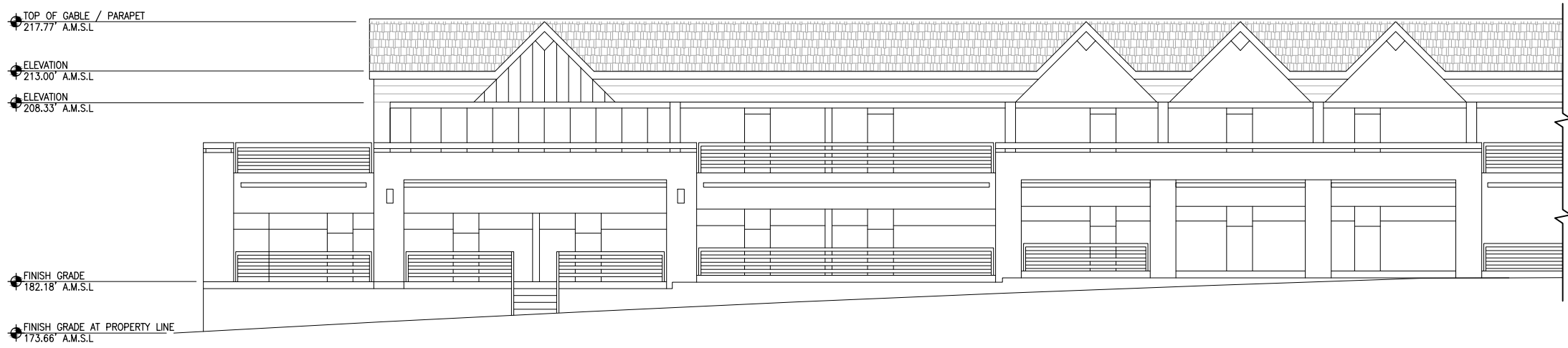
NCD
SELVA HILL

34085 PACIFIC COAST HWY
DANA POINT, CA 92629

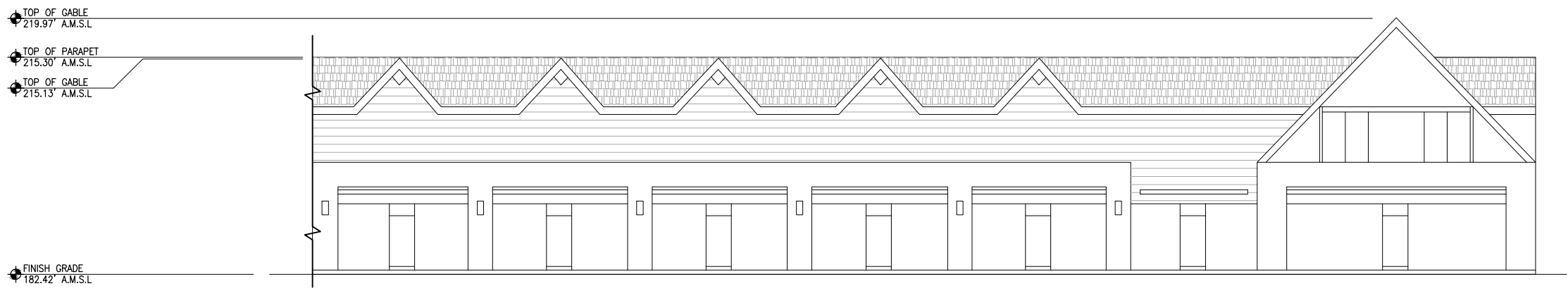
SHEET TITLE:
TOPOGRAPHIC
SURVEY

LS-2

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES.



NORTH ELEVATION
NTS



EAST ELEVATION
NTS

ISSUE STATUS			
REV.	DATE	DESCRIPTION	BY
0	04/27/21	PRELIMINARY SURVEY	AB
1	05/05/23	FINAL SURVEY	LJ
2	08/08/23	UPDATE SURVEY	LJ
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15505 SAND CANYON AVENUE, D1
IRVINE, CA 92618



NCD
SELVA HILL

34085 PACIFIC COAST HWY
DANA POINT, CA 92629

SHEET TITLE:
ELEVATIONS

LS-3

EXISTING

Selva Hill NCD
Project ID 15949473
34085 Coast Highway
Dana Point, CA 92629



Proposed antennas mounted behind
a new FRP screened roof enclosures



PROPOSED

These simulations are intended for graphical purposes only and not intended to be part of or to replace the information provided on the construction drawings

5/13/2024

Photosimulation of proposed telecommunications site: Northeasterly elevation view from PCH

EXISTING

Selva Hill NCD
Project ID 15949473
34085 Coast Highway
Dana Point, CA 92629



Proposed antennas mounted behind
a new FRP screened roof enclosure



PROPOSED

EXISTING

Selva Hill NCD
Project ID 15949473
34085 Coast Highway
Dana Point, CA 92629



Proposed antennas mounted behind
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PROPOSED

EXISTING

Selva Hill NCD
Project ID 15949473
34085 Coast Highway
Dana Point, CA 92629



Proposed antennas mounted behind
a new FRP screened roof enclosure

PROPOSED

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to be part of or to replace the information provided on the construction drawings
5/13/2024

Photosimulation of proposed telecommunications site: Northwesterly elevation view from PCH

EXISTING

Selva Hill NCD
Project ID 15949473
34085 Coast Highway
Dana Point, CA 92629



Proposed antennas mounted behind
a new FRP screened roof enclosures



PROPOSED

These simulations are intended for graphical purposes only and not intended to be part of or to replace the information provided on the construction drawings
5/13/2024

Photosimulation of proposed telecommunications site: View from Dana Point Headlands Park

EXISTING



Proposed antennas mounted behind
a new FRP screened roof enclosures



PROPOSED

SUPPORTING DOCUMENT 6: Site Search Exhaustion Study

VZW "SELVA HILL" – SITE SEARCH EXHAUSTION HISTORY

EXHIBIT A

The following candidates were explored, evaluated, and abandoned (2016 – 2017 – 2018):

Name	Address	Reason
Blue Lantern Inn	34343 Street of the Blue Lantern DANA POINT, CA 92624	RF needs a site closer to PCH. Explored a faux chimney design. LL was interested, but very concerned with the level of noise during construction. Initial rent discussions with LL were extremely high.
Gracie	34085 COAST HWY DANA POINT, CA 92624	Site was killed when the LL refused to return emails and calls. LL had requested xxx\$K upfront and when VZW said they were not able to provide payments until lease was signed, LL went silent.
Hilltop Park	Street of the Green Lantern	Code prohibits wireless site here
Bella	34100 COAST HWY DANA POINT, CA 92629	Nursery Site has no room for a tower and ground equipment.
Enterprise	24366 DEL PRADO DANA POINT, CA 92629	Site has low roof and little to no room for a tower.
Jack's	24462 DEL PRADO DANA POINT, CA 92629	RF not satisfied with location, too low. Limited options for roof location; no ground space.

Summary:

This targeted area of Dana Point has limited options and is mostly low single- and two-story structures with topography declining to the south and west. This limits options to essentially properties along PCH and towards the upper elevations at the base of the residential hillside homes. Options for free-standing towers are minimal, rooftop sites deemed most likely to succeed if lease terms can be reached successfully and design concepts can be approved.

VZW “SELVA HILL” – SITE SEARCH EXHAUSTION HISTORY

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This targeted area of Dana Point has limited options and is mostly low single- and two-story structures with topography declining to the south and west. This limits options to essentially properties along PCH and towards the upper elevations at the base of the residential hillside homes. Options for free-standing towers are minimal, rooftop sites deemed most likely to succeed if lease terms can be reached successfully and design concepts can be approved.

SUPPORTING DOCUMENT 7: RF Emissions Compliance Report



Radio Frequency Exposure

RF Safety and NIER Analysis Report

04/05/2024

Site: SELVA HILL

Dana Point, CA

Prepared for: Verizon

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1 Certification

This report, prepared by Telecom Technology Services, Inc. for **Verizon**, is intended to document compliance and evaluate power density levels as outlined in the report. The computations, analysis, and resulting report and conclusions were based on applicable FCC guidelines and regulations for maximum permissible exposure to humans consistent with FCC OET Bulletin 65, Edition 97-01.

Additionally, Telecom Technology Services, Inc. certifies that the assumptions are valid and that the data used within Telecom Technology Services control are accurate, including information collected as part of Telecom Technology Services field surveys. Telecom Technology Services, Inc. does not however certify the accuracy or correctness of any data provided to Telecom Technology Services, Inc. for this analysis and report by Verizon or other third parties working on behalf of Verizon.

I certify that the attached RF exposure analysis and report is correct to the best of my knowledge, and all calculations, assumptions and conclusions are based on generally acceptable engineering practices:



SIGNED, 9 APR 2024

Tim Alexander,
PE

Digitally signed by Tim Alexander, PE
DN: cn=Tim Alexander, PE, o=Proteus
Power Engineering, ou,
email=proteuspower@outlook.com, c=US
Date: 2024.04.09 11:05:42 -0700






Tim Alexander, P.E.

Report Prepared by: Mohamed Ahmed, 04/05/2024
Report Reviewed by: Mike Arnold, 04/05/2024

2 Executive Summary

This report provides the results of an RF power density analysis performed for **Verizon** at site **SELVA HILL** in accordance with the Federal Communications Commission (FCC) rules and regulations for RF emissions described in OET Bulletin 65, Edition 97-01.

This report addresses RF safety for two classified groups defined by OET Bulletin 65: Occupational/ Controlled and General Population/ Uncontrolled. Based on the analysis, this site will be **Compliant** with FCC rules and regulations and Verizon's Signage and Barrier Policy if the mitigation details provided in Table 1 are implemented.

Final Compliant Configuration						
	GUIDELINES	NOTICE	CAUTION	WARNING	NOC INFO	BARRIER/MARKER
Access Point(s)	<input checked="" type="checkbox"/> [1]*	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input checked="" type="checkbox"/> [1]*	<input type="checkbox"/> []
Alpha	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []
Beta	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []
Gamma	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []

NOTE: The table represents either the signage/barriers installed / removed OR items required by the market (if mitigation is not installed by consultant/vendor).

* These RF signs should be posted at the Access Hatch to the Main Roof. (See drawing in Section 5.2).

Specialty Sign Detail

Location	N/A
Access Point	N/A
Alpha	N/A
Beta	N/A
Gamma	N/A

NOTE: The tables above represent EXISTING compliance items implemented at this location.

Notes/ Additional Compliance Requirements(s):
Mitigation is required per the Signage/ Barrier Diagram.

Table 1: Mitigation Requirements for Compliance

2.1 Conclusion and Recommendations

- The results of the analysis indicate that the power density levels in the generally accessible areas on the Antenna Level for Alpha Sector will not exceed the FCC's MPE limit for General Population. Notice that the power density levels will exceed the FCC's MPE limit for General Population, Occupational and 10x Occupational limits in front of the antennas which it is not generally accessible areas.
- The results of the analysis indicate that the power density levels in the generally accessible areas on the Pitched Roof 1 Level will not exceed the FCC's MPE limit for General Population.
- The results of the analysis indicate that the power density levels in the generally accessible areas on the Main Roof Level will not exceed the FCC's MPE limit for General Population.
- The results of the analysis indicate that the power density levels in the generally accessible areas on the Parking Roof Level will not exceed the FCC's MPE limit for General Population.
- The results of the analysis indicate that the power density levels in the generally accessible areas on the Ground Level will not exceed the FCC's MPE limit for General Population.
- The max theoretical % MPE (General Public) is **6347.83%** directly in front of the antennas beams at the Antenna Level for Alpha Sector. Notice that the power density levels will exceed the FCC's MPE limit for General Population Occupational and 10x Occupational limits in front of the antennas which it is not generally accessible areas.
- NOC and Guidelines signs need to be posted at the Access Hatch to the Main Roof.

Note: Modifications to the site; and/or increases in channel counts or power levels exceeding those listed in this report will require additional evaluation to determine compliance.

3 Introduction

The purpose of this analysis and report is to evaluate the cumulative power density levels of all non-excluded antennas located on the site and identify any areas of concern that require mitigation. This report also assesses the site's compliance with FCC OET Bulletin 65; "Guidelines for Human Exposure to Radio-frequency Electromagnetic Fields".

The power density simulation performed for this site utilized RoofMaster® analysis software. All antennas were assigned an operating frequency and transmit power and were deemed to be operating at 100% of their configured output power.

3.1 Site Description:

- **Site Name:** SELVA HILL
- **Street Address:** 34085 Coast Highway
Dana Point, CA 92629
- **Latitude:** 33° 27' 53.14" N
- **Longitude:** 117° 42' 24.73" W
- **Structure Type:** Rooftop
- **Structure Height:** ± 40.0' AGL
- **Co-Locators/ Other Antennas:** N/A
- **BTS Equipment Location:** The Verizon equipment is located on the Main Roof.

3.2 Site Configuration Being Modeled

- This is a Three-sector site supporting 5G NR at 850 MHz, LTE at 700, 850, 1900, 2100 MHz, CBRS at 3600 MHz and C-Band at 3700 MHz for all sectors. ALL LTE assumes 4x4 MIMO.
- The values of the antennas rad center of Alpha sector (26.08'), the values of the antennas rad center of Beta and Gamma sectors (18.44'), Main Roof height (30') and Stairs height (9') are based on the CDs, Google Earth and RFDS. These values must be verified on the site audit for the post study.
- The Pitched Roof 1 has the same height as the Pitched Roof 2 (34').
- The Parking Roof has the same height as the Lower Roof (15').

4 Predictive Analysis Details

For purposes of this analysis, RoofMaster® was configured to provide an output based on the appropriate MPE limit(s) published in the FCC's guidelines. The antenna information was loaded into RoofMaster®, an MPE predictive analysis tool by Waterford Consultants, LLC.

4.1 Analysis Locations:

Number of Elevations Analyzed: 5

- Antenna Level for Alpha Sector Level
- Pitched Roof Level.
- Main Roof Level.
- Parking Roof Level.
- Ground Level.

PLANNING COMMISSION AGENDA REPORT
AUP24-0001; CDP24-0007; CUP24-0002(M)
JUNE 10, 2024
PAGE 2

4.2 Antenna Inventory

The following table contains the technical data used to simulate the power density that may be encountered with all antennas simultaneously operating at full rated power with the exception of any excluded antennas cited in this document. If co-locator's antennas exist and specific antenna details could not be secured, generic antennas, frequencies, and transmit powers were used for modeling. The assumptions used are based on past experience with communications carriers.

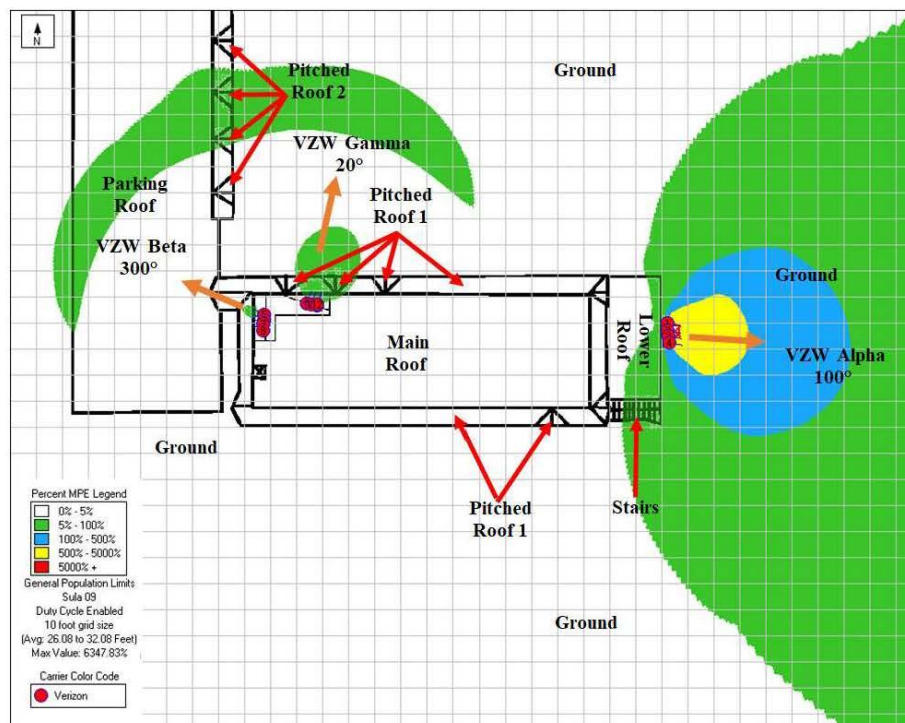
ID	Name	(MHz) Freq	Trans Power	Trans Count	Other Loss	Cable Power	Power ERP	BD Tilt (Deg)	Qty	Model	Antenna Level (Alpha Sector) Z (ft)	Pitched Roof 1 Z (ft)	Main Roof Z (ft)	Parking Roof Z (ft)	Ground Z (ft)	Type	(ft) Ager	dBi Gain	Width	Orientation
VZ Alpha_Ant1	C-Band	3700	3	64	0	192.0	69685	0	ERICSSON	SON_AIR6419	0.00	-7.92	-3.92	11.08	26.08	Panel	2.4	23.45	11	100
VZ Alpha_Ant2	L700	730	60	2	0.5	107.0	2149.2	0	COMMSCOPE	SON_NHH65A-R2B	0.00	-7.92	-3.92	11.08	26.08	Panel	4.6	10.88	66	100
VZ Alpha_Ant2	L850	880	60	2	0.5	107.0	2444.5	0	COMMSCOPE	SON_NHH65A-R2B	0.00	-7.92	-3.92	11.08	26.08	Panel	4.6	11.44	61	100
VZ Alpha_Ant2	L2100	2110	40	4	0.5	142.6	6471	0	COMMSCOPE	SON_NHH65A-R2B	0.00	-7.92	-3.92	11.08	26.08	Panel	4.6	14.42	61	100
VZ Alpha_Ant2	L2100_3	2170	40	4	0.5	142.6	6471	0	COMMSCOPE	SON_NHH65A-R2B	0.00	-7.92	-3.92	11.08	26.08	Panel	4.6	14.42	61	100
VZ Alpha_Ant3	L700	730	60	2	0.5	107.0	2149.2	0	COMMSCOPE	SON_NHH65A-R2B	0.00	-7.92	-3.92	11.08	26.08	Panel	4.6	10.88	66	100
VZ Alpha_Ant3	L850	880	60	2	0.5	107.0	2444.5	0	COMMSCOPE	SON_NHH65A-R2B	0.00	-7.92	-3.92	11.08	26.08	Panel	4.6	11.44	61	100
VZ Alpha_Ant3	L1900	1900	80	4	0.5	285.2	12764	0	COMMSCOPE	SON_NHH65A-R2B	0.00	-7.92	-3.92	11.08	26.08	Panel	4.6	14.36	64	100
VZ Alpha_Ant4	CBRS	3600	5	4	0	20.0	294	0	ERICSSON	SON_KRE105281	0.00	-7.92	-3.92	11.08	26.08	Switched Beam	1.0	9.53	64	100
VZ Beta_Ant1	C-Band	3700	0.3125	64	0	20.0	7259	0	ERICSSON	SON_AIR6419	-7.64	-15.56	-11.56	3.44	18.44	Panel	2.4	23.45	11	300
VZ Beta_Ant2	L700	730	5	2	0.5	8.9	178.82	0	COMMSCOPE	SON_NHH65A-R2B	-7.64	-15.56	-11.56	3.44	18.44	Panel	4.6	10.88	66	300
VZ Beta_Ant2	L850	880	5	2	0.5	8.9	203.43	0	COMMSCOPE	SON_NHH65A-R2B	-7.64	-15.56	-11.56	3.44	18.44	Panel	4.6	11.44	61	300
VZ Beta_Ant2	L2100	2110	5	4	0.5	17.8	809	0	COMMSCOPE	SON_NHH65A-R2B	-7.64	-15.56	-11.56	3.44	18.44	Panel	4.6	14.42	61	300
VZ Beta_Ant2	L2100_3	2170	5	4	0.5	17.8	809	0	COMMSCOPE	SON_NHH65A-R2B	-7.64	-15.56	-11.56	3.44	18.44	Panel	4.6	14.42	61	300
VZ Beta_Ant3	L700	730	5	2	0.5	8.9	178.82	0	COMMSCOPE	SON_NHH65A-R2B	-7.64	-15.56	-11.56	3.44	18.44	Panel	4.6	10.88	66	300
VZ Beta_Ant3	L850	880	5	2	0.5	8.9	203.43	0	COMMSCOPE	SON_NHH65A-R2B	-7.64	-15.56	-11.56	3.44	18.44	Panel	4.6	11.44	61	300
VZ Beta_Ant3	L1900	1900	5	4	0.5	17.8	797	0	COMMSCOPE	SON_NHH65A-R2B	-7.64	-15.56	-11.56	3.44	18.44	Panel	4.6	14.36	64	300
VZ Beta_Ant4	CBRS	3600	5	4	0	20.0	294	0	ERICSSON	SON_KRE105281	-7.64	-15.56	-11.56	3.44	18.44	Switched Beam	1.0	9.53	64	300
VZ Gamma_Ant1	C-Band	3700	0.3125	64	0	20.0	7259	0	ERICSSON	SON_AIR6419	-7.64	-15.56	-11.56	3.44	18.44	Panel	2.4	23.45	11	20
VZ Gamma_Ant2	L700	730	60	2	0.5	107.0	2149.2	0	COMMSCOPE	SON_NHH65A-R2B	-7.64	-15.56	-11.56	3.44	18.44	Panel	4.6	10.88	66	20
VZ Gamma_Ant2	L850	880	60	2	0.5	107.0	2444.5	0	COMMSCOPE	SON_NHH65A-R2B	-7.64	-15.56	-11.56	3.44	18.44	Panel	4.6	11.44	61	20
VZ Gamma_Ant2	L2100	2110	40	4	0.5	142.6	6471	0	COMMSCOPE	SON_NHH65A-R2B	-7.64	-15.56	-11.56	3.44	18.44	Panel	4.6	14.42	61	20
VZ Gamma_Ant2	L2100_3	2170	40	4	0.5	142.6	6471	0	COMMSCOPE	SON_NHH65A-R2B	-7.64	-15.56	-11.56	3.44	18.44	Panel	4.6	14.42	61	20
VZ Gamma_Ant3	L700	730	60	2	0.5	107.0	2149.2	0	COMMSCOPE	SON_NHH65A-R2B	-7.64	-15.56	-11.56	3.44	18.44	Panel	4.6	10.88	66	20
VZ Gamma_Ant3	L850	880	60	2	0.5	107.0	2444.5	0	COMMSCOPE	SON_NHH65A-R2B	-7.64	-15.56	-11.56	3.44	18.44	Panel	4.6	11.44	61	20
VZ Gamma_Ant3	L1900	1900	80	4	0.5	285.2	12764	0	COMMSCOPE	SON_NHH65A-R2B	-7.64	-15.56	-11.56	3.44	18.44	Panel	4.6	14.36	64	20
VZ Gamma_Ant4	CBRS	3600	5	4	0	20.0	294	0	ERICSSON	SON_KRE105281	-7.64	-15.56	-11.56	3.44	18.44	Switched Beam	1.0	9.53	64	20

The antenna Z-heights listed above are referenced to Antenna Level for Alpha sector, Pitched Roof 1, Main Roof, Parking Roof and Ground Levels.

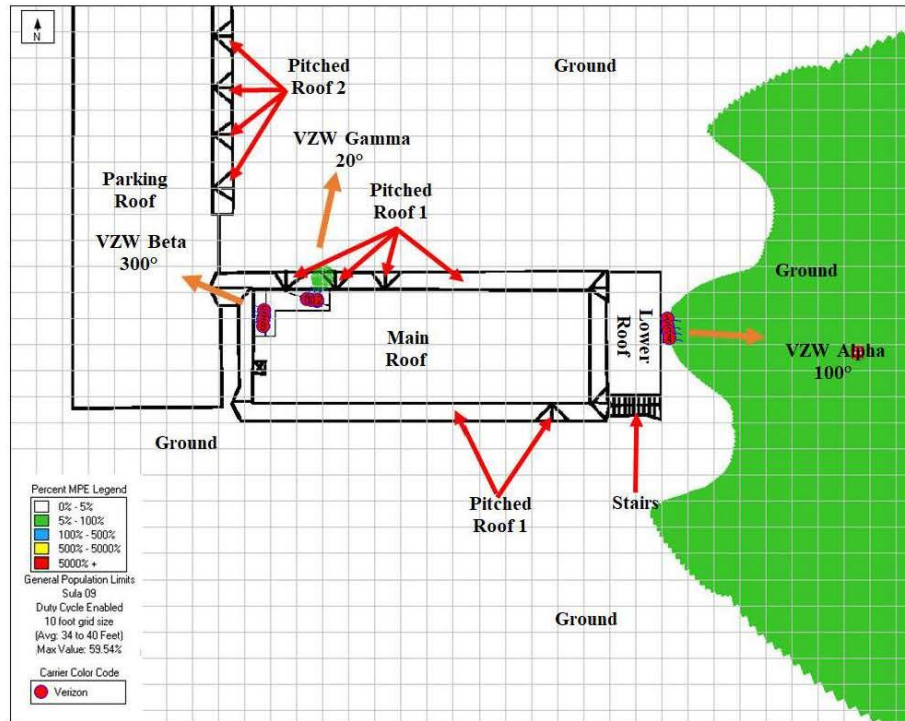
4.3 RF Emissions Diagram(s) - All Transmitters

The following Diagram(s) represent the theoretical spatially averaged Maximum Permissible Exposure (MPE) percentages that are expected for each study's elevation. An additional 1% Occupational MPE Limit (5% General Population MPE limit) is included to demonstrate where Verizon is a significant contributor to the accessible areas where multiple carriers' transmitters may be present.

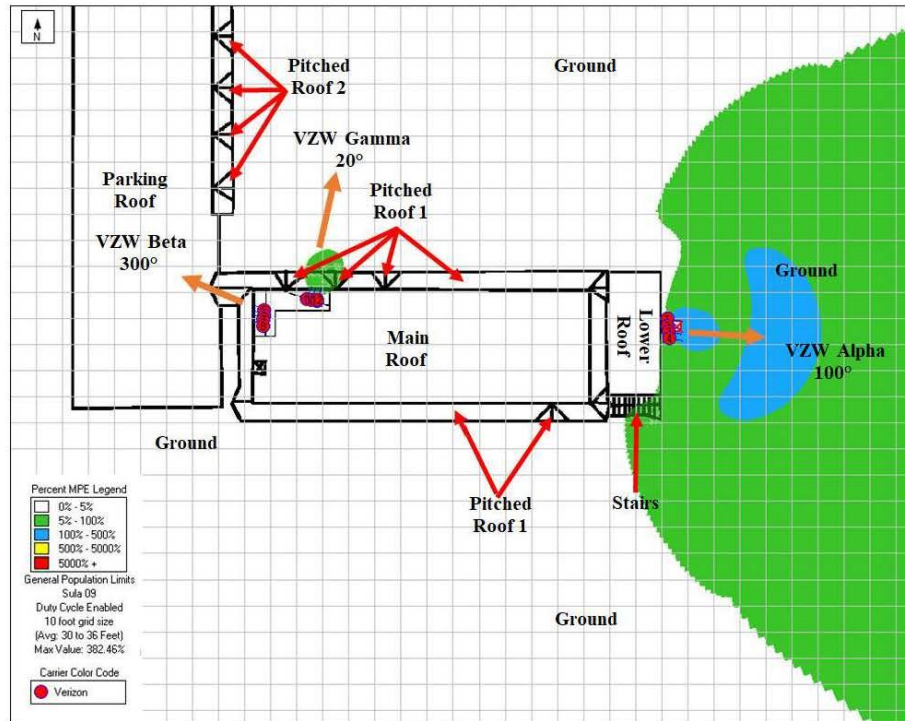
Reference Plane: Antenna Level for Alpha Sector



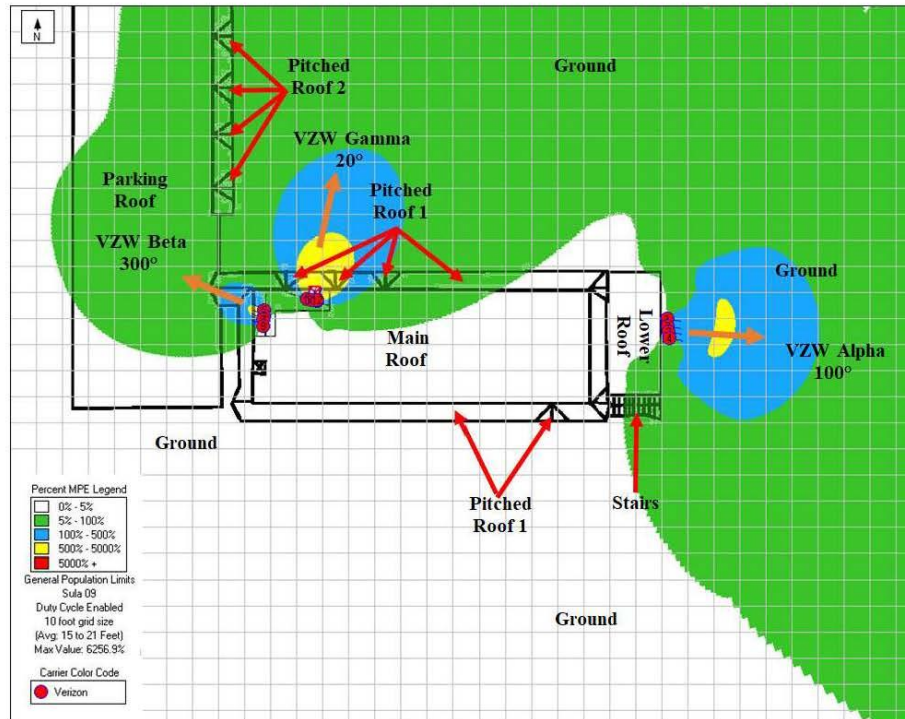
Reference Plane: Pitched Roof 1 Level



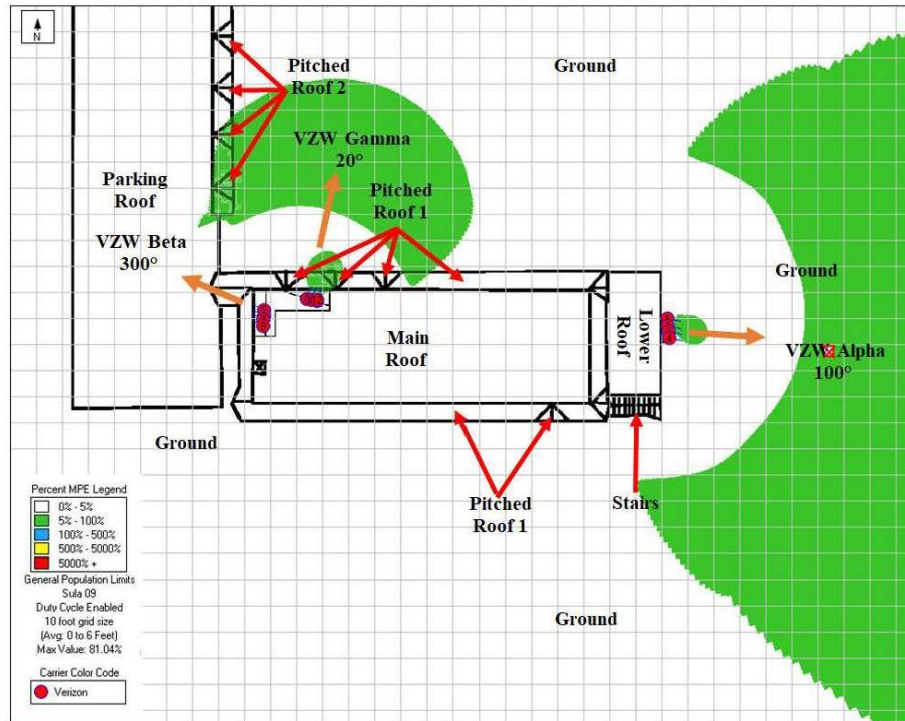
Reference Plane: Main Roof Level



Reference Plane: Parking Roof Level



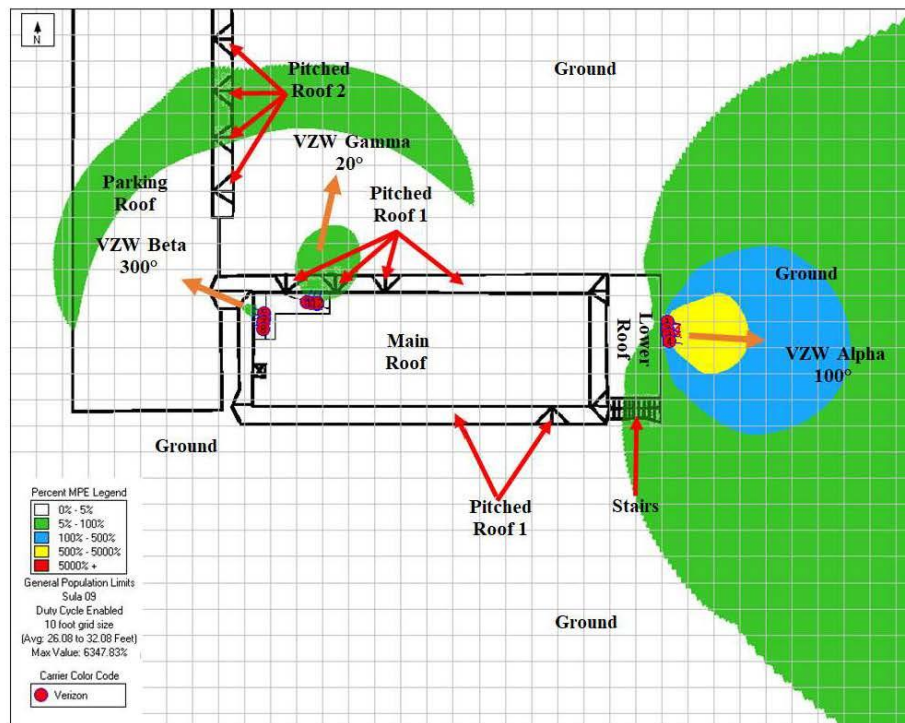
Reference Plane: Ground Level



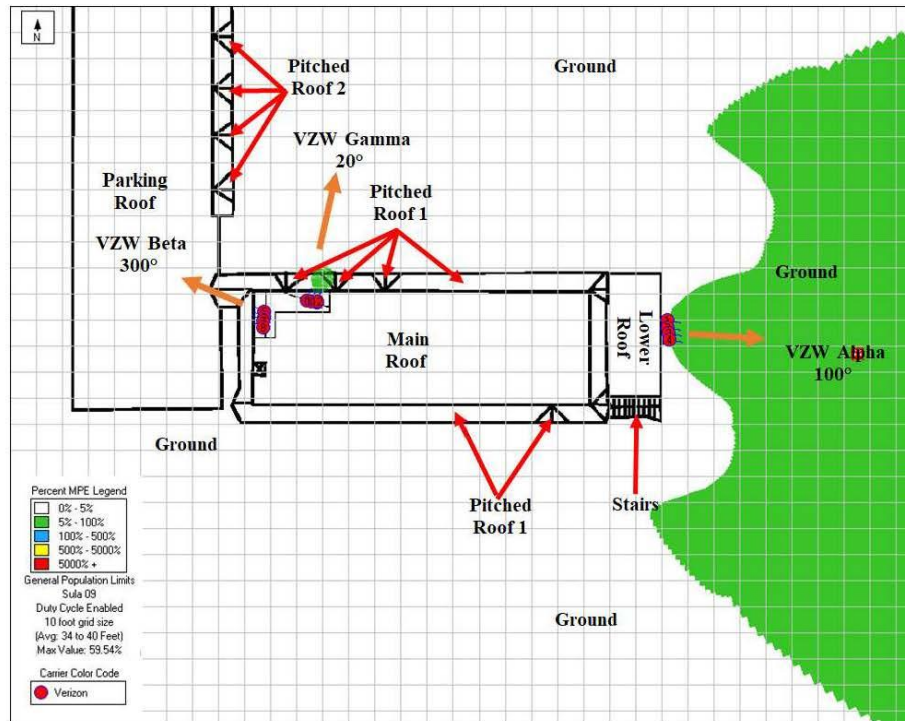
4.4 RF Emissions Diagram(s) - Verizon Transmitters *Only*

The following Diagram(s) represent the theoretical spatially averaged Maximum Permissible Exposure (MPE) percentages that are expected for each study's elevation. An additional 1% Occupational MPE Limit (5% General Population MPE limit) is included to demonstrate where Verizon is a significant contributor to the accessible areas where multiple carriers' transmitters may be present.

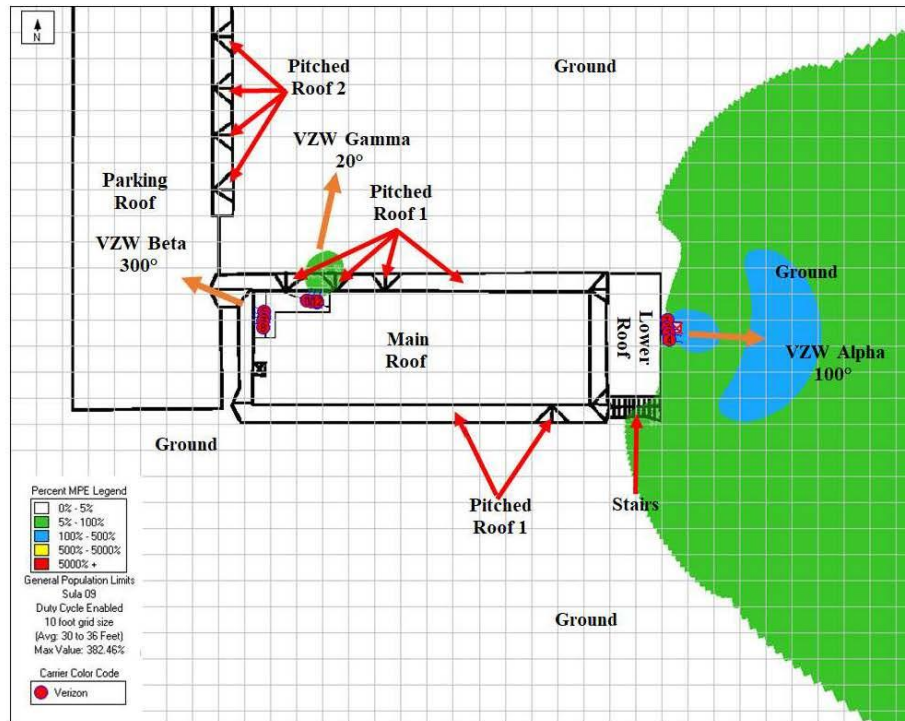
Reference Plane: Antenna Level for Alpha Sector



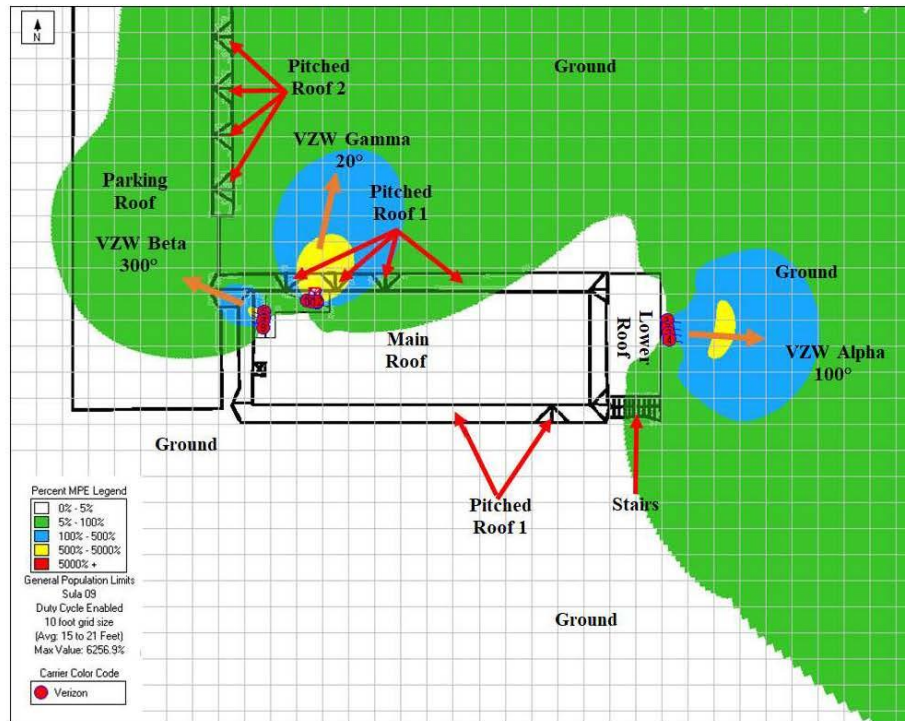
Reference Plane: Pitched Roof 1 Level



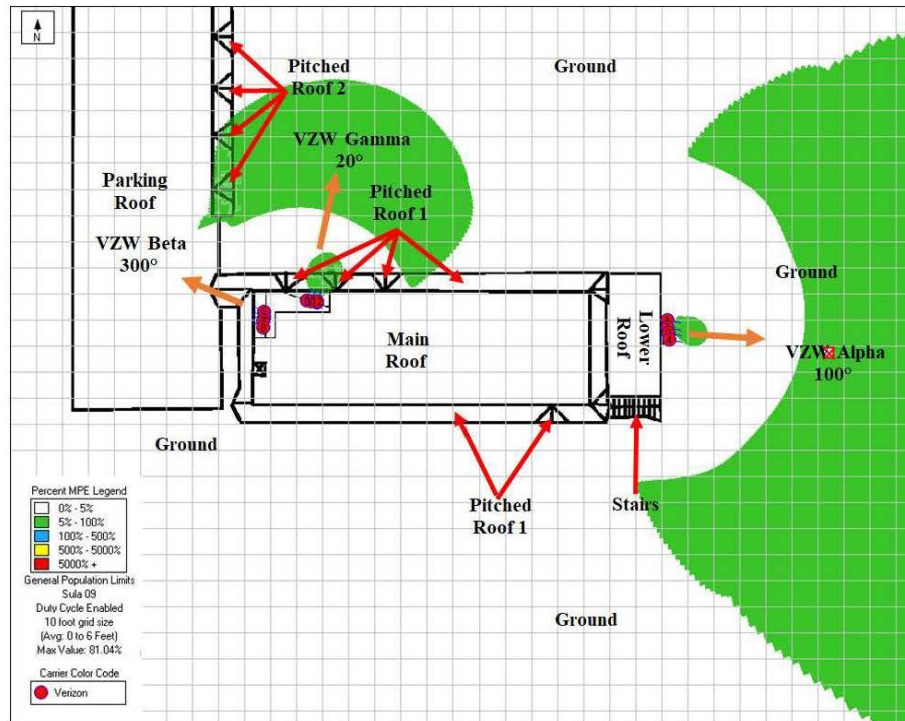
Reference Plane: Main Roof Level



Reference Plane: Parking Roof Level




Reference Plane: Ground Level



5 Signage/ Mitigation

5.1 Signage/ Barrier Detail

Final Compliant Configuration						
	GUIDELINES	NOTICE	CAUTION	WARNING	NOC INFO	BARRIER/MARKER
Access Point(s)	<input checked="" type="checkbox"/> [1]*	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input checked="" type="checkbox"/> [1]*	<input type="checkbox"/> []
Alpha	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []
Beta	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []
Gamma	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []	<input type="checkbox"/> []

NOTE: The table represents either the signage/barriers installed / removed OR items required by the market (if mitigation is not installed by consultant/vendor).

* These RF signs should be posted at the Access Hatch to the Main Roof. (See drawing in Section 5.2).

Specialty Sign Detail

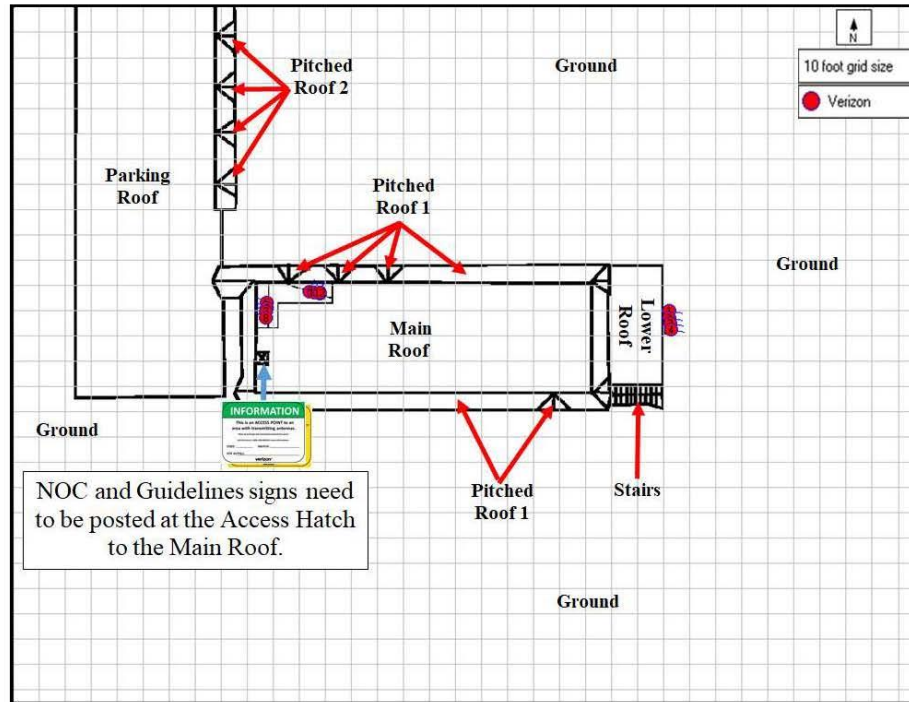
Location	
Access Point	N/A
Alpha	N/A
Beta	N/A
Gamma	N/A

NOTE: The tables above represent EXISTING compliance items implemented at this location.

Notes/ Additional Compliance Requirements(s):
Mitigation is required per the Signage/ Barrier Diagram.

Table 2: Mitigation Requirements for Compliance

5.2 Signage/ Barrier Diagram



6 Conclusions and Recommendations

- The results of the analysis indicate that the power density levels in the generally accessible areas on the Antenna Level for Alpha Sector will not exceed the FCC's MPE limit for General Population. Notice that the power density levels will exceed the FCC's MPE limit for General Population, Occupational and 10x Occupational limits in front of the antennas which it is not generally accessible areas.
- The results of the analysis indicate that the power density levels in the generally accessible areas on the Pitched Roof 1 Level will not exceed the FCC's MPE limit for General Population.
- The results of the analysis indicate that the power density levels in the generally accessible areas on the Main Roof Level will not exceed the FCC's MPE limit for General Population.
- The results of the analysis indicate that the power density levels in the generally accessible areas on the Parking Roof Level will not exceed the FCC's MPE limit for General Population.
- The results of the analysis indicate that the power density levels in the generally accessible areas on the Ground Level will not exceed the FCC's MPE limit for General Population.
- The max theoretical % MPE (General Public) is 6347.83% directly in front of the antennas beams at the Antenna Level for Alpha Sector. Notice that the power density levels will exceed the FCC's MPE limit for General Population Occupational and 10x Occupational limits in front of the antennas which it is not generally accessible areas.
- NOC and Guidelines signs need to be posted at the Access Hatch to the Main Roof.

Note: Modifications to the site; and/or increases in channel counts or power levels exceeding those listed in this report will require additional evaluation to determine compliance.

7 Appendix A: FCC Compliance and RF Safety Policies

In August of 1997, the FCC published OET Bulletin 65 Edition 97-01 to regulate methods for evaluating compliance with FCC guidelines for human exposure to radiofrequency (RF) electromagnetic fields. The FCC guidelines for human exposure to RF electromagnetic fields incorporate two categories of limits; namely “Controlled” (a.k.a. Occupational) and “Uncontrolled” (a.k.a. General Public). The guidelines offer suggested methods for evaluating fixed RF transmitters to ensure that the controlled and uncontrolled limits deemed safe by the FC for human exposure are not exceeded.

OET Bulletin 65 recommended guidelines are intended to allow an applicant to “make a reasonably quick determination as to whether a proposed facility is in compliance with the limits.” In addition, the guidelines offer alternate supplementary considerations and procedures such as field measurements and more detailed analysis that should be used for multiple emitter situations.

These guidelines define RF as emissions in the frequency range of 300 kHz to 100 GHz. The FCC define Maximum Permissible Exposure (MPE) limits within this frequency range based on limits recommended by the National Council on Radiation Protection and Measurement, the Institute of Electrical and Electronics Engineers (IEEE), and by the American National Standards Institute (ANSI).

The specific MPE limits defined by the FCC are as follows:

Limits for Occupational/Controlled Exposure				
Frequency Range [MHz]	Electric Field Strength (E) [V/m]	Magnetic Field Strength (H) [A/m]	Power Density (S) [mW/Cm ²]	Averaging Time E ^2, H ^2 or S [minutes]
0.3 - 3.0	614	1.63	100*	6
3.0 - 30	1842/f	4.89/f	900/f ² *	6
30 - 300	61.4	0.163	1	6
300 - 1,500	-	-	f/300	6
1,500 - 100,000	-	-	5	6

Limits for General Population/Uncontrolled Exposure				
Frequency Range [MHz]	Electric Field Strength (E) [V/m]	Magnetic Field Strength (H) [A/m]	Power Density (S) [mW/Cm ²]	Averaging Time E ^2, H ^2 or S [minutes]
0.3 - 3.0	614	1.63	100*	30
3.0 - 30	842/f	2.19/f	180/f ² *	30
30 - 300	27.5	0.073	0.2	30
300 - 1,500	-	-	f/1500	30
1,500 - 100,000	-	-	1	30

f = frequency

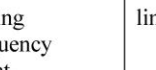



*Plane-wave equivalent power density


The FCC states that “Occupational/ Controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for Occupational/ Controlled exposure also apply in situations when an individual is transient through a location where Occupational/ Controlled limits apply provided he or she is made aware of the potential for exposure.”

For General Population/ Uncontrolled limits, the FCC states that “General Population/ Uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not fully be aware of the potential for exposure or cannot exercise control over their exposure.”

For purposes of this analysis, all limits are evaluated against the Power Density limits.

Typical guidelines for determining whether Occupational/ Controlled limits can be applied include ensuring the environment (such as a rooftop) as limited/controlled access via locked doors or physical barrier that are preferably controlled by a landlord that is aware of the situation and can inform anyone going through the locked door of the existence of the RF emissions. Such notification/awareness is typically accomplished by means of signage on the door, or other access to the area of concern, as well as signage on or near the antennas. Examples of such signs include the following:

GUIDELINES	NOTICE	CAUTION	WARNING
<p>This sign will inform anyone of the basic precautions to follow when entering an area with transmitting radiofrequency equipment.</p>	<p>This sign indicates that RF emissions may exceed the FCC General Population MPE limit.</p>	<p>This sign indicates that RF emissions may exceed the FCC Occupational MPE limit.</p>	<p>This sign indicates that RF emissions may exceed at least 10x the FCC Occupational MPE limit.</p>
			

<p align="center">NOC INFORMATION</p> <p>Information signs are used as a means to provide contact information for any questions or concerns. They will include specific cell site identification information and the Verizon Wireless Network Operations Center phone number.</p>	 <p>The image shows a green and white sign. The top section is green with the word 'INFORMATION' in white. Below this, it says 'This is an ACCESS POINT to an area with transmitting antennas.' and 'Do not touch or tamper with this equipment.' There are two checkboxes: 'CHECKED' and 'UNCHECKED'. At the bottom, there are fields for 'DATE' and 'TIME', and the Verizon logo.</p>
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Standards for when to use each of the above signs for Occupational situations are as follows:

No sign required: <20% of Occupational MPE
Blue Sign, Notice: 20% to <100% of MPE
Yellow Sign, Caution: 100% to <1000% of MPE
Red Sign, Warning: ≥1000% of MPE

All MPE references are to the FCC Occupational limits.

8 Appendix B: Overview of RoofMaster® Functions and Assumptions

RoofMaster® is a RF Compliance software package designed to enable the analysis, assessment and mitigation of communications sites with respect to human exposure to radiofrequency electromagnetic fields.

RoofMaster® was developed in 2008 by Waterford Consultants to support compliance assessments performed at single and multi-operator wireless locations throughout North America and has been in service since 2008. Real-world experience in evaluating thousands of base station installations is reflected in the RoofMaster® design approach. This document provides a guide for creating simulations of RF hazard conditions through the characterization of antenna systems and site features and through FCC-specified computational analysis.

On any structure, one may encounter antennas installed by wireless service providers, public safety and other FCC-licensed and unlicensed operators. Siting constraints have resulted in diverse and complex environments accessible to people performing a variety of activities around these antennas. RoofMaster® supports the characterization of these locations to convey important information regarding RF sources and accessible areas necessary to evaluate the potential for human exposure to hazardous levels of RF energy.

RoofMaster® supports the depiction of communications sites through the display of construction drawing or aerial photography image files as well as providing line drawing tools. These representations are scalable to enable the modeling of any location.

RoofMaster® utilizes a three-dimensional spatial framework consisting of a 1000 x 1000 grid with unlimited vertical dimensions necessary for the positioning of antennas and modeling of RF conditions at each grid point throughout the space. Predictive analysis is performed on a study plane at a specified elevation. The subsequent sections of this guide provide the steps necessary to create a site representation and conduct these studies.

RoofMaster® employs several power density prediction models based on the computational approaches set forth in the Federal Communications Commission's Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields, OET Bulletin 65. This guideline utilizes several antenna and operational parameters in calculating the power density contributions from each emitter at specified points throughout the study space. RoofMaster® enables antennas to be fully defined in site specific aspects as well as through the use of a library of manufacturer data. The parameters include:

§ Antenna model
§ Radiation patterns
§ Aperture length
§ Gain
§ Beamwidth
§ Antenna radiation center
§ Azimuth
§ Mechanical downtilt
§ Location
§ Frequency
§ Power into antenna

In OET-65, the Cylindrical Model is presented as an approach to determine the spatially averaged power density in the near field directly in front of an antenna. In order to implement this model in all directions, RoofMaster® utilizes the antenna manufacturer horizontal pattern data. Additionally, RoofMaster® incorporates factors that reduce the power density by the inverse square of horizontal and vertical distance beyond the near field region.

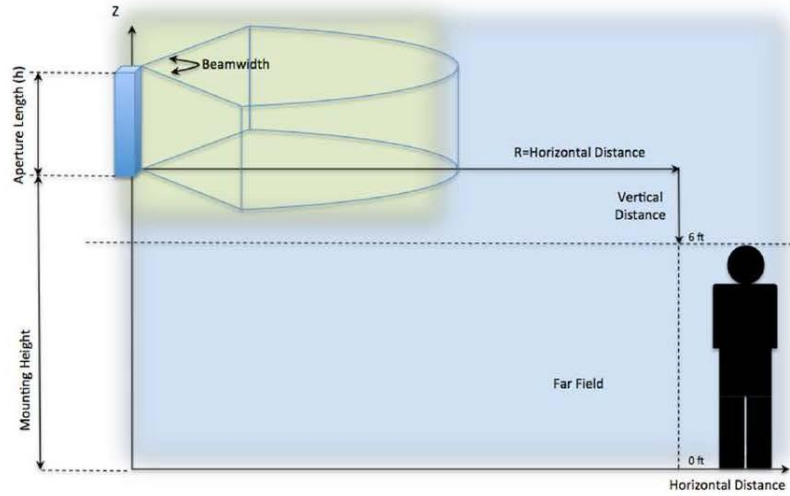
Power density is calculated as follows:

$$S = \left(\left(\frac{360}{\text{Beamwidth}} \right) \frac{P_{in} G_H H_r V_r}{2 \pi R h} \right) \frac{\mu W}{cm^2}$$

- S is the spatially averaged power density value
- R is the horizontal distance meters to the study point
- h is the aperture length in meters
- P_{in} is power into the antenna input port in Watts

RoofMaster® Implementation:

- G_H is gain offset to study point as specified in manufacturer horizontal pattern
- P_{in} is adjusted by the portion of the antenna aperture in the 0-6 ft. vertical study zone
- H_r accounts for 1/R² Far Field roll off which starts at 2*h
- V_r accounts for 1/ (vertical distance)² roll off from antenna bottom to the top of the 0-6 ft. study zone (or antenna top to bottom of 0-6 ft. study zone)



9 References

FCC (1997). “Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields”; Federal Communications Commission; Office of Engineering and Technology, OET Bulletin 65, Edition 97-01, August.

Waterford Consultants, LLC (2008). RoofMaster® User Guide, Waterford Consultants, LLC.

10 Limited Warranty

Telecom Technology Services, Inc. warrants that this analysis was performed in good faith using the methodologies and assumptions covered in this report and that data used for the analysis and report were obtained by Telecom Technology Services, Inc. employees or representatives via site surveys or research of Verizon's available information. In the event that specific third-party details were not available, best efforts were made to use assumptions that are based on industry experience of various carriers' standards without violating any confidential information obtained under non-disclosure terms.

Telecom Technology Services, Inc. also warrants that this analysis was performed in accordance with industry acceptable standards and methods.

There are no other warranties, express or implied, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose, relating to this agreement or to the services rendered by Telecom Technology Services hereunder. In no event shall Telecom Technology Services be held liable to Verizon, or to any third party, for any indirect, special, incidental, or consequential damages, including but not limited to loss of profits, loss of data, loss of good will, and increased expenses. In no event shall Telecom Technology Services be liable to Verizon for damages, whether based in contract, tort, negligence, strict liability, or otherwise, exceeding the amount payable hereunder for the services giving rise to such liability.

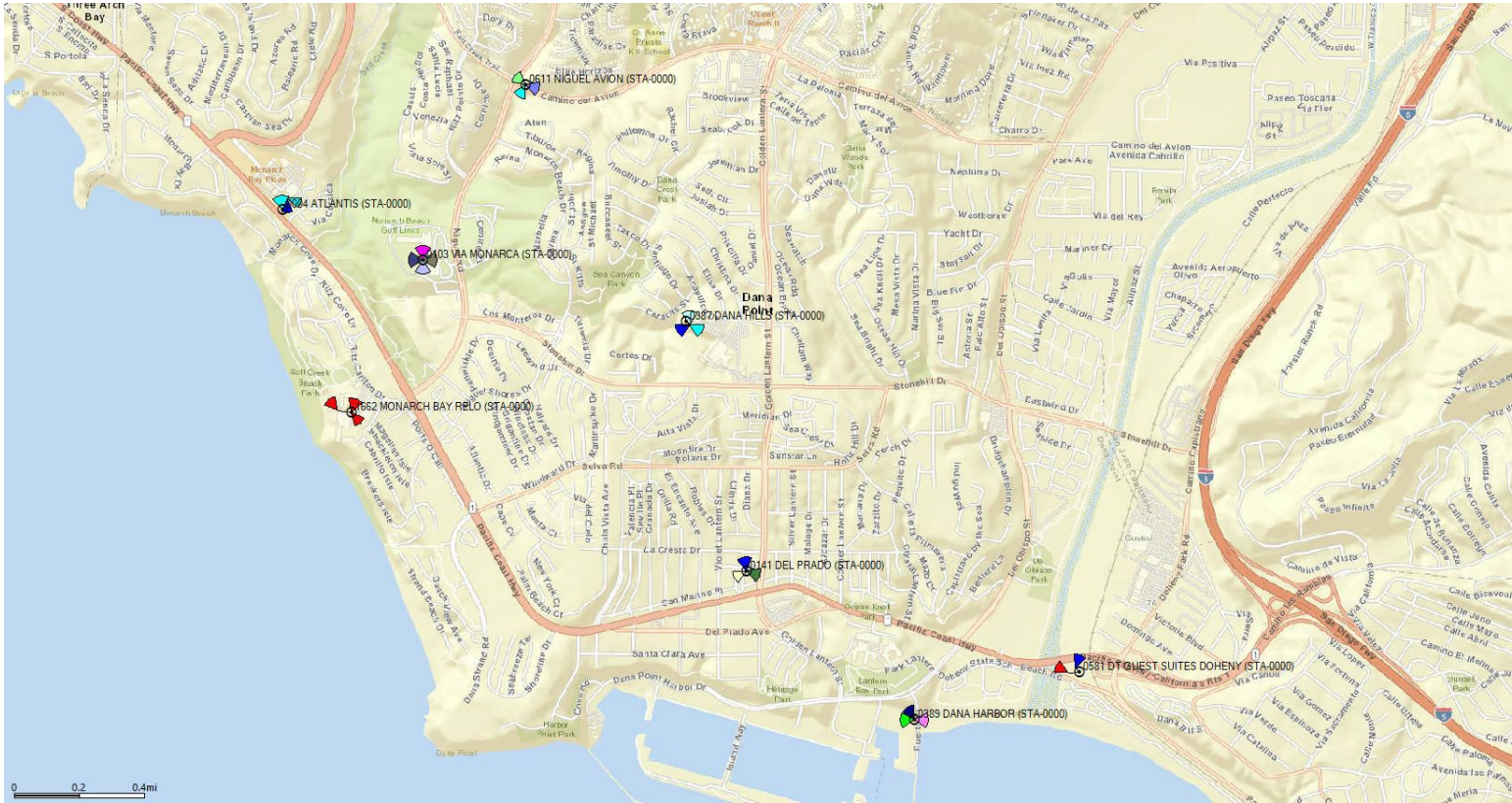
SUPPORTING DOCUMENT 8: Verizon Wireless Coverage Maps

ATTACHMENT

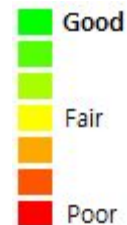
DRAFT

Dana Point RF Maps

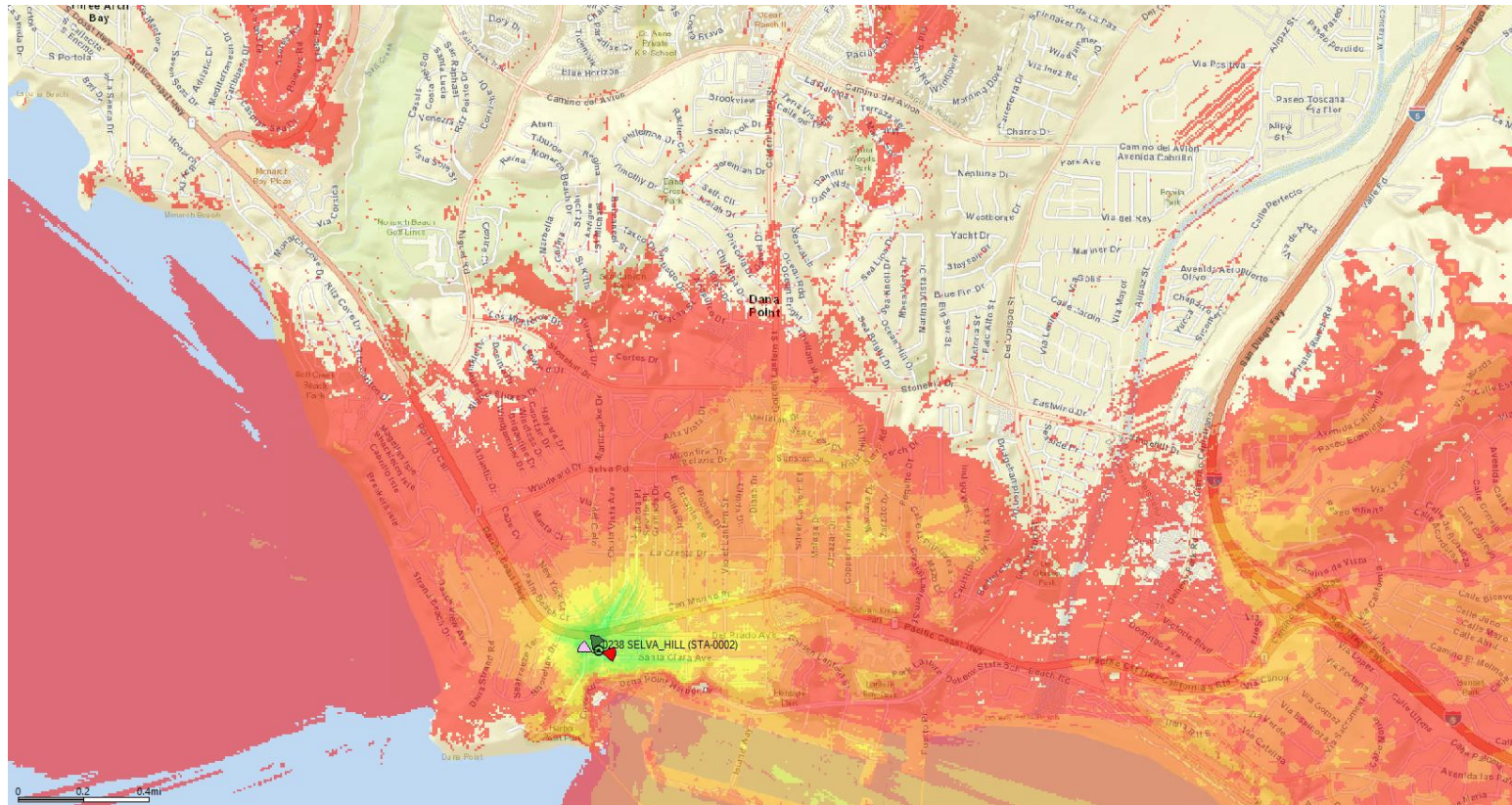
Sites in Dana Point



Current Coverage without Selva Hill



Coverage of Selva Hill



Coverage with Selva Hill

